

## EXCLUSIVE CONTRIBUTIONS

### Third Pan-American Medical Congress.

Reported by DR. A. C. BENTACOURT.

On the 4th, 5th, 6th and 7th of February, 1901, the Dental Section of the Pan-American Medical Congress, held in the City of Havana, met in one of the halls of the University. Some interesting papers were read by local dentists, and though a good many dentists from the United States promised to attend or forward papers, only two complied with the latter. Erastus Wilson, M.D., D.D.S., presided, and Dr. Adolphe C. Betancourt discharged the duties of secretary.

There was one delegate from Kansas City Dental College, Jefferson Griffity, M.D., but this gentleman did not present any paper. The titles of some of the papers read were:

"Sarcomata of the Maxillæ," Dr. Ygnacio Rojas.

"Predisposing Causes of the Caries of Teeth in General and in Particular in Costa Rica," Dr. B. Marichal.

"Some Considerations of the Dental Outlook in Cuba," Dr. Erastus Wilson.

"The Immediate Extirpation of the Dental Pulp and Dental Hygiene," Dr. Andres Weber.

From our confreres of the United States, the paper entitled, "The Influence of Mouth Breathing in the Dental Arch," by Dr. M. D. Lederman, was translated from the original language and merited the applause of those present.

Dr. Talbot's paper on the "Treatment of Interstitial Gingivitis" was greatly quoted and elicited varied comments, and his description of testing the acidity of secretions by the means of plaster of paris plates was thought both interesting and new. In regard to this latter, he described it thus:

"Liebreich's method of using plaster of paris plates, as elaborated by A. H. Hoy, of Chicago, is as follows:

**Novel Test for Acid in the Mouth.** "Mix a quantity of very thin plaster to the consistency of cream; thoroughly incorporate the plaster. Take two panes of glass, cut four pieces of wood three-sixteenths of an inch in thickness and place one at each corner of the glass; now pour the plaster into the center, place the other plate of glass above and press it down upon the blocks of wood. By this method a very smooth surface can be obtained. Make a round cutter out of tin the size of a twenty-five cent piece. Remove the upper piece by sliding it off; cut out disks just before the plaster hardens. These are prepared in the following manner: A solution of litmus in twelve parts of water is rendered alkaline or bright blue by adding a few drops of aqua ammonia. After the disks have become hard, the smooth surface is to be painted with the solution, using a camel's hair brush, two or three applications, till an even blue is obtained. Have a solution of chemically pure sulphuric acid, two parts in five hundred of distilled water.

"To prepare the disks for the test, scrape one-half of the dark blue surface of the plate until a light blue surface is obtained. This requires the removal of only a slight amount, since the blue satin only permeates a short distance. With a small brush dipped into the acid, draw it quickly over the surface exposed, giving a red appearance to the field adjoining the blue. A bit of cotton wound around the end of a toothpick wet with distilled water and applied to the two colors will produce no change, thus proving everything to be in working order. The fluid to be tested—urine, saliva or perspiration—may now be applied. When possible, the exudate must be applied to the test as soon as it leaves the body, care being taken to apply a fixed quantity each time.

"Apply the fluid to be examined to both blue and red fields. When saliva is used, the mouth must be rinsed two or three times, and the quantity first sucked out of the ducts must not be used. Only fresh saliva direct from the glands should be used. The plates, after they have been used, may be re-stained and used indefinitely. The dentist should make repeated tests of the secretions of healthy individuals under different conditions before studying those of diseased conditions.

"This method is a more delicate test than it is possible to make with litmus paper.

"Litmus paper often fails to reveal reaction, which will be most obvious by this method. It is almost impossible to obtain a satisfactory permanent red litmus. By this method, the red and blue fields stand out in bold contrast.

"The secretions of the body, if found to be acid, must be placed in an amphoteric condition as soon as possible. An amphoteric condition is a reaction by which both the blue and red litmus are affected.

"If the red becomes blue, and the blue red, it indicates that there is an amphoteric reaction. The salt giving the alkaline reaction is trisodic phosphate; that giving the acid reaction is the monasodic phosphate. When uniform color is produced, it shows that alkaline and acid salts are being properly excreted in normal quantities with no excess of free acid. The normal urine specific gravity is 1018 to 1025. To determine the specific gravity, the morning urine should be used. If about 1018 or lower and acid, it is due to fermentation in small intestines. In such cases, avoid yeast bread, acid fruits, wines, vinegar and all acids. If specific gravity is 1025 or more and acid, avoid meats."

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This paper was read in English, and those who understood the language highly appreciated it.

Everything that was pleasant and comfortable to make the brief stay of the delegates from abroad was put in force, and many regretted their return to their homes. To those who had never seen a sugar mill, the opportunity was afforded by visiting one in the neighborhood of this province, in full blast of grinding and sugar making.

The next congress is to meet in Buenos Ayres in 1904.

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## Constitutional Treatment of Pyorrhea Alveolaris.

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By DR. S. FREEMAN, New York.

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Since introducing the compressed air apparatus and presenting the many methods in which it is used for the treatment of diseases of the oral cavity, I have been frequently asked if I only treat such diseases locally. To answer these numerous requests of my professional colleagues, I thought it advisable to give my views in the form of an original communication, avoiding the necessity of writing so many letters.

All cases of diseases of the mouth and teeth which have a local origin generally require topical treatment, but whenever such cases have undermined the general health, it is your duty as dentists, to see that your patients have the proper constitutional treatment. The question arises at once, have we the legal right to prescribe medicaments for these cases? It is within our province to give a prescription, but if the case

requires a complicated course of internal medication, my advice would be, to recommend your patient to consult his family physician, and inform the medical man of your diagnosis. There are many lesions of the mouth which you can readily diagnose to be due to constitutional disorder. One most frequently met with by the dental practitioner is pyorrhea alveolaris. Without going into the etiology of such cases, I will explain my diagnosis and prognosis gained from clinical deductions.

**Clinical Aspects  
of  
Pyorrhea.**

A case of pyorrhea alveolaris may be accompanied by some of the following symptoms: Pallor of the skin and mucosa as indicated by the general surface and livid lips; languor, debility and extreme fatigue under the slight exertion, occasional palpitation, headaches or possibly perverted and unnatural appetite. The visible, undulating pulsation of the carotids or the pulsation of the peripheral veins, loss of or impaired nerve function, neuralgia, coolness of the surface, both muscular and mental weakness, a weak thready pulse. Then make as a whole or in part a clinical picture that is easily recognized as a case of pyorrhea alveolaris, due to the anaemic condition of the patient. Your first duty is to place the mouth of the patient in a thorough prophylactic condition.

In cases as above described, iron in some form has long been recognized as an essential and most excellent remedy. Sometimes we are disappointed, either from the inability to get the patient to take it in sufficient quantities, or from failure to secure a perfect assimilation. I find the best compound for general medication is "Gude's Pepto Mangan" and have observed in all cases of this character after a short lapse of time there has occurred a rapid increase in the appetite, and that, the disturbance of digestion has disappeared, the color of the face became normal, the teeth were firmer and the gums regained their healthy appearance and that all cases of pyorrhea alveolaris were greatly benefited or perfectly cured, whilst if I had only treated locally I could never have gained the same success as by this systemic treatment. In cases of pyorrhea alveolaris due to syphilis, tuberculosis or any complicated disease, I place the mouth in a prophylactic condition and attend to all the local treatment, referring the patient to his medical advisor for constitutional treatment, or at any rate call the attention of the physician that he may closely observe the condition of mouth and teeth.

## Amalgam Alloys.

By F. McL. LONGLEY, D.D.S., Aberdeen, Miss.

This is a subject that has been discussed probably as much, if not more, than any other subject in the domain of dentistry. There is still, however, much for the great masses of the profession to learn.

Regarding the manipulation of the alloy after it is prepared, and its proper insertion into the cavity, I shall have little to say. That phase of the subject is taught so thoroughly in the colleges, and discussed so much in society meetings, that it is far better understood than is the proper composition and preparation of the alloy.

Of course the proper insertion of the filling has a great deal to do with its success. A good alloy, consisting of the proper metals in the right proportion to prevent shrinkage, expansion, etc., if poorly and carelessly inserted, will make a poor filling. On the other hand, a good alloy, properly inserted, will make a far better and more satisfactory filling, than a poor alloy inserted under the same conditions and with the same care. Consequently to make our success complete, we should insist on having the proper alloy.

For several years, some of the most eminent men in the profession have given this subject an immense amount of study. A great many of us have read all of Dr. G. V. Black's articles on this subject, yet how many of us have profited by them?

What percentage of the members of our profession know, or have any idea of the composition of the alloy they are daily inserting in teeth?

There has been some advance made in this respect I will admit, but it has been slow indeed. What would we think of a physician who prescribed a patented remedy, the composition of which he knew nothing? We would, of course, rightly term him a quack.

Now, when we insert into the teeth of our patients a filling, the composition of which we are ignorant, we are doing practically the same thing as the physician who would prescribe a secret, patented remedy. This subject should be taught more in our colleges. The student should be taught the properties of each metal used in amalgam alloys; what combination of the different metals make the best alloy, and how to properly melt it up and prepare it. This should be taught both theoretically and practically. That some of our colleges give such instruction, I am aware. That many do not, I am also aware. Now comes the question of what metals, and in what proportions should be the composition of a good alloy.

**Silver  
and Tin.**

To begin with, silver is undoubtedly the metal of first importance in an amalgam alloy, with tin ranking second. Silver and tin in varying proportions form the basis for all alloys. Other metals are used in small quantities for their modifying influence on these two while going through the process of amalgamation. Silver has a tendency to expand, while tin contracts when formed into an amalgam. We should combine these two metals so that there shall be neither shrinkage nor expansion. This point seems to be reached in the proportion of about sixty-five per cent silver to thirty-five per cent tin. Silver increases the edge strength of the filling, makes a hard filling, hastens setting, and modifies very much the tendency of the filling to "flow" or "spheroid." It does not unite with mercury very readily, and requires more time to make the "mix," but sets very rapidly.

Tin, on the other hand, takes up the mercury and unites with it very readily and sets very slowly. To make an alloy in which we strike the happy medium between the two, and get an alloy that will neither shrink nor expand, will not "flow" or change its form under the stress of mastication, will not spheroid or bulge out in the center with the edges drawing away from the edges of the cavity, will set reasonably quick and stay just as it is inserted, has been the desire of those who have given the subject deep study during the past few years.

The proportions stated above seem to have been the result of most of the experiments in this connection. Some of the best authorities place the proportion a little above sixty-five per cent of silver, but the basis of silver sixty-five per cent, tin, thirty-five per cent, seems to have been the proportion most universally adopted. Dr. J. Foster Flagg, one of our most eminent authorities who has made plastics a special study for more than forty years, has long advocated a formula of silver, sixty-five per cent, tin, thirty per cent and copper, five per cent, for molar teeth that were so badly broken down with decay that he dare not fill them with anything else. The copper has a tendency to increase the edge strength, diminishes the liability to shrink, expand or change form in any way. It discolors very much, but this is due to the formation of an oxide by the copper which, it is claimed, helps to retard decay. Gold in a small proportion, say three or four per cent, modifies the tendency to shrink or expand, and increases the edge strength. It also makes a smoother working amalgam. Platinum has been claimed to have about the same properties as gold, but its influence in any way is a matter of extreme doubt. Zinc, in a small proportion, has a tendency to prevent shrinkage or expansion, and also makes a whiter amalgam, and prevents

discoloration. These are the principal metals used in the composition of alloys.

**Formula  
for Alloy.**

I have tried in my practice a good many different formulas, but the one giving the most universal satisfaction is composed of silver, sixty-five per cent, tin, thirty per cent, gold, three per cent, and zinc, two per cent. I first used this formula about three years ago, and fillings of it put in at that time, look now just as they did when inserted, and seem to be preserving the teeth remarkably well. If they have changed their shape in any way, I cannot detect it. They are also holding their color better than is usual with amalgam fillings. I have also made tests in glass tubes with the same satisfaction.

Of course, this or any other formula, if not properly manipulated, will make a poor filling. After mixing and kneading the mass to a putty-like consistency, I squeeze the surplus mercury out thoroughly with chamois and pliers. I then insert it into the cavity, a small piece at a time, packing each piece thoroughly, working any further surplus of mercury to the surface and removing it. Now, I think we should be able to dictate the formula for the alloy we are to use on our patients. If we have not the time, or proper equipment in our office to make them ourselves, we can have them made, but we should be the ones to say of what they shall be composed, and we should be able to do it as intelligently as does the physician when he dictates his prescription. Let us stop using in the mouths of our patients, a composition of which we know nothing, except that it has a very high sounding name and is profusely recommended by its manufacturer.





## Reply to Dr. Kells.

By RICHARD SUMMA, D.D.S., St. Louis, Mo.

On page 654, ITEMS OF INTEREST, 1900, Dr. C. E. Kells cites four objections to the Angle system of fixed appliances. On pages 658 and 659, same journal, he invites a comparison between his "simple methods" and the Angle system. On page 662 of same journal he makes another attack upon the Angle system. In consequence of these invitations to make a comparison of Dr. C. E. Kells's "simple methods" with the Angle system, I wrote the "Reply to an Adverse Criticism of Fixed Appliances in orthodontia," published in December, 1900, ITEMS OF INTEREST.

In the February, 1901, ITEMS OF INTEREST Dr. Kells writes: This paper (Simple Methods in orthodontia, September, 1900, ITEMS OF INTEREST) was not an attack upon the 'Angle' nor any other system, but rather a criticism upon Dr. Guilford's work, though its primal object was to illustrate simple appliances for use in correcting simple cases of irregularity, in the hope of assisting some other practitioners who might appreciate their advantages over those heretofore used by them."

Be that as it may, the remarks in reference to the "Angle System" made by Dr. Kells in his "Simple Methods in Orthodontia" justified my reply. Dr. Kells offers the following three cases as evidence that the "Angle System" is inferior to his rubber plates. In order to be exact in my statements, I shall here repeat his own words:

"I will now describe three complete failures in simple cases of irregularity, treated by the Angle System by other operators, which have comparatively recently come into my hands.

"In the first, a superior lateral was slightly rotated and aligned, and a retaining fixture consisting of the cemented band and spur put in position, this work being executed by a man of acknowledged ability in

a western city. Shortly afterwards the patient journeyed southward, and while on her way the band came off, and before she applied to me the tooth had returned to its normal position and the retainers could not be replaced.

"In the second case, another lateral had been aligned by a dentist in an eastern city, and in this case also a band and spur were cemented upon the tooth as a retainer. Within a few weeks it came off, whereupon the history of the first case can be repeated here. The tooth was realigned, a retaining plate was put in, a duplicate given the boy to provide against accident (as is always done) and several months have elapsed and no trouble whatever has arisen. In this case the retainers are to be worn at least eighteen months, during which time there will not be the slightest danger of the tooth retracting, as there 'are no bands to come off at an inopportune moment.'

"Case No. 3 is most interesting, I am sure, to those who wish to compare our 'simple methods' with the Angle system in such cases.

"In Fig 1 is shown the model of a child where the centrals were erupting within the arch and articulating inside of the lower teeth. When the left central had partly erupted, and before the right central had shown itself, the child was taken to a dentist of national reputation in a northern city, evidently a firm believer in the Angle system, as he banded the central and also the left molar, and fixed a lever from the one to the other, in order to rotate and extrude the offending central.

"Shortly after this the child started homewards and he left the appliances *in situ*. In this case the bands did not come off; it would have been better had they done so, for when I saw her four days after she had left his hands the poor little patient was suffering very much and no good result had been accomplished. Naturally at this age the molar had but partly erupted and the bands upon both teeth extended under the gums, which were inflamed and painful about both teeth. The wire had pressed upon the gum tissue in the region over the cupid to such an extent that it was completely buried in it, and naturally the child had not been able to eat with comfort or properly care for her teeth; furthermore, the lever was badly rusted, of course.

"The bands were at once removed from both teeth, the lever wire was drawn out of the gum as one draws a thread from the eye of a needle, the gum having healed over it; the gums were treated and the child sent away for the time being."

I feel that I ought to beg pardon of the readers of this journal for repeating the entire libretto of Dr. Kells's farce entitled "Reply." How-

ever, nothing so emphatically sustains my contention that Dr. Kells is not sufficiently acquainted with true orthodontia to pass any criticism, as do Dr. Kells's own words, so freely expended in the criticism of the "three fatal cases."

Since Dr. Kells fails to show that these fatal cases were treated by the "Angle System," the arguments offered in these "three fatal cases" are irrelevant, incompetent and immaterial.

These cases plainly portray lack of "average skill" in fitting such appliances and inexcusable carelessness. Because an appliance is abused does not prove that the appliance is at fault. We well know that men possessing ability in some or all other branches of dentistry cannot successfully correct mal-occlusion. This is one of a number of arguments for placing orthodontia in the hands of specialists. In Dr. Kells's first article he minimizes the importance of specialists in orthodontia and we would only add that if such monstrosities must be placed in the mouths of patients, as advocated by Dr. Kells, and if this is the best dentists can do, we would say it is high time that there were specialists in orthodontia, not only in large cities, but in small ones, to whom patients could go for the treatment of this important though much neglected work.

Case No. three, which appears most interesting and argumentative to Dr. Kells, is illustrative of an abuse of an appliance as well as of a patient. If this case was treated by a man of national reputation, I hope he did not gain this reputation through his tinkering in orthodontia. Furthermore, it is not an Angle appliance.

May I ever be worthy of the title of student, so kindly bestowed upon me by my esteemed opponent and as such may it be my privilege, "without the aid of a mentor," to point out to all whose dignity prevents them from being students and also those who never were students that indisputable scientific facts preclude a recognition of so-called V-shaped, hatchet-shaped or Gothic arches as a class of mal-occlusion. Arches of this kind (narrow arches with protruding incisors) are plentifully described and illustrated in Dr. Angle's recent work. They may belong to any one of the three classes of mal-occlusion depending upon the mesio-distal relation of the first molars and cuspids.

Dr. Kells's assertion that there have been no improvements in orthodontia in twenty years must bring a smile to even a freshman student. I herewith present a quotation bearing upon the much discussed subject of improvement and originality:

"When Sir Isaac Newton felt the falling apple, the force was not new. When Watt observed the power of steam in lifting the tea-kettle lid, the power was not new. It was formulation and subjecting these

powers to the uses of men which were new. Because Noah built the Ark, Webb the clipper ships, and Ericsson the Monitor, shall it be said that all other vessels shall be but copied?"

It is but proper here to refer to a paper by Dr. Kells published in the December, 1900, "Review." The Doctor illustrates a case belonging to class II., division I. After profusely apologizing for using the "B" arch of the Angle system, he illustrates what he deems a bad result of an Angle appliance. It is, however, only an abuse of an Angle appliance by the gentleman from Louisiana. If, instead of presenting Figure 2, Dr. Kells had illustrated correct models of both arches (showing their occlusion) he and every student of orthodontia would instantly see that by the use of too strong temporary retaining ligatures he has drawn the teeth posterior to the space considerably forward, thus drawing them closer together bucco-lingually since they now form an arc of a smaller circle. The Doctor's conclusions are also founded on other mistakes whose description does not belong to this article. I am convinced, had the Doctor paid due respect to occlusion in this case, he would never have written the above-mentioned paper. What the reader now demands is facts as to the actual changes produced in facial lines and occlusion and all the apparatus used in effecting these changes.

My worthy opponent belongs to that class of dentists who uphold the crude, bulky, foul-smelling, inefficient, detachable, yes, ever-loosening vulcanite plate in preference to the modern beautifully finished, gracefully proportioned and efficient skeleton form of appliance.\* The intelligent use of these appliances will lessen the time required for the correction of any mal-occlusion to one-fourth of the time needed when employing the "dark ages" plate methods which were taught Dr. Kells, as he naively admits, by his father "twenty-five years ago," and he should have added, had he been familiar with the literature, were old at that time. We advise Dr. Kells to improve his methods and knowledge of the subject, learn how to make models and to quit afflicting his patients with such bulky "germ culture boxes." Patients have a right to expect better treatment in these times. Where the Doctor may in time bring fairly good results in the treatment of simple cases, yet he does it

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\*If Dr. Summa means us to understand that the vulcanite plate is to be entirely abandoned in orthodontia, his teaching is extreme and erroneous. The skeleton forms of appliances, which he so much admires, are admirable in many cases, but they have their limitations, and in many instances the much derided plate, even when made of vulcanite, is vastly superior, as well as being more quickly constructed. If we are to have real specialists in orthodontia they should not be men wedded to special so-called systems of regulating teeth, but should be broadly instructed and competent to choose from many methods the one best adapted to an individual case.—Editor.

not only at an extravagant expenditure of time and energy on his part, but he probably disgusts the entire circle of acquaintances of his patients and discourages all their friends ever going through like experiences.

There are many possibilities in the restoration of occlusion and the normal contour of the face never dreamed of in the use of detachable plates, prominent among which is the shifting mesially or distally of either or both of the lateral halves of either or both arches by means of the Baker method of anchorage, as described in Dr. Angle's latest work. The very fact of his advocating detachable appliances, which must be removed for cleansing—a fragrant necessity—(to say nothing of the times it is removed and inserted by the patient "on the sly"), tells its own story and shows ignorance of a very important principle in the physiology of tooth movement, for at each removal and insertion of his "detachable system" he produces a springing backwards and forwards of the tender moving teeth which necessarily so acts upon the tissues of the periodental membrane as to incite inflammation—the one greatest cause of death of pulps, and pain in regulating. There is nothing better settled in orthodontia than that if we would accomplish the movement of teeth with the minimum amount of inflammation, inconvenience and time to the patient, we must avoid the frequent relinquishment of pressure and adopt that principle in applying force which will enable us to exert a firm, constant pressure which is only possible with the non-detachable, skeleton form of appliance which need never be removed for cleansing purposes, and if intelligently applied and operated, possesses only a rare possibility of ever loosening from accident.

After assuring my esteemed opponent of my sincere respect and appreciation of his ability as a dentist, I kindly request him to again read my reply in the December, 1900, *ITEMS OF INTEREST*, in the hope that he will find on page 398 the following paragraph: "It is a fact that properly made bands do not come off so easily that the operator need worry. In case of sickness, fixed bands and the expansion arch are much less objectionable than any removable form of appliance, for the teeth can be held at any stage with the least possible discomfort."

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Since writing the above I notice that Dr. Kells sought to relieve himself of some of the mental pain inflicted by my criticism of his "Simple Methods" by requesting the publication of an article in the March *ITEMS OF INTEREST*, in which the "busy practitioner" tries to justify his "wretched models" and ask some questions which seem to him perplexing.

Let me inform Dr. Kells that perfect plates are bad enough when used as regulating appliances, therefore necessarily imperfectly fitting

plates are proportionately worse. I gladly admit that I have not yet learned that in cases where teeth lean extensively, accurate impressions are not desirable, and I sincerely hope that no one will ever follow such peculiar teaching.

As soon as Dr. Kells will recognize the fact that "occlusion is the basis of the science of orthodontia" he will recognize the value of obtaining accurate models of each and every case, and as soon as Dr. Kells learns to take plaster impressions according to the Angle method he will cease to imagine that a plaster impression is such a discomfort to the patient.





# SOCIETY PAPERS

## "Where Are We At?"

By SAFFORD G. PERRY, D.D.S., New York.

*Read before the Second District Dental Society of the State of New York, February, 1901*

At the conjunction of the centuries it seems fitting to consider where we are "at" in our profession. The occasion is one of profound interest in all departments of human effort, and has already given rise to much fine writing, and to an unusual overflow of inspired eloquence.

On the highway of time this event is an overshadowing milestone that marks the movement of human affairs in a manner to satisfy the most imaginative poet, the most vivid historian, the most exact scientist!

It is a period that naturally invites retrospect and one that justifies prophecy.

In looking back over our profession, the great **Establishment of the First Dental Colleges.** event that towers above all others is the establishment of the first dental college. Before that all

was without form, and void. There was no such thing as a dental profession. Except in the large cities, where men of unusual abilities had established themselves, dentists were a band of itinerants. The little they knew was acquired by a short time spent with some one already in practice, the privilege being well paid for. There was no interchange of ideas, all acquired facts being considered valuable secrets. This condition of things was intolerable to a few men who appreciated the possibilities of dentistry, and keenly felt the need of some established means of dental education. To them was due the credit of the establishment of the first dental

college. Regret has often been expressed over the separation of dentistry from medicine at that eventful time. Separation cannot occur between things that do not exist. Dentistry was not recognized by medicine, because it did not exist, and there was no course open for those honored men who banded themselves together to organize it except to establish it on an independent basis.

Those men were all graduates in medicine, but they had no profession back of them, and they could not get recognition from any medical college then existing. It matters not how much we may regret the parting of the ways—it was inevitable! From that moment to this our profession has developed in accordance with the law of evolution, which determines all human affairs.

From that early beginning in 1840, when the Baltimore College of Dental Surgery graduated two students, to the present time, when there are in existence in this country fifty dental colleges, graduating, it is said, in one year over one thousand students, the advancement has been steady and toward a higher standard all along the line. The whole profession has been benefited and elevated, not alone by the turning out of better educated men, but by the training that has been necessary in fitting men to teach. In discussing dental education, I think this latter point has not been given the prominence it deserves. Teaching in dental colleges has fitted men to become leaders in our profession.

The competition and emulation of the colleges have forced a higher standard, and here we see an illustration of the inexorable law of the survival of the fittest. It is doubtful if the rank and file of our profession realize the perfect equipment of many of our colleges. The thoroughness of instruction and the facilities for technical demonstration are such as would make the founders of the first dental college rub their eyes in wonder and ask "Where are we at?" We hear much said about further raising the standard of dental education, and of increasing the time of study. This is a healthy sign and indicates that a very, very high standard is desired, rather than that a high standard has not been attained.

Conflicting forces are at work in our profession and have been since its inception. On the one hand is a startlingly large increase in the number of yearly graduates, and an increased capacity for work, owing to improved facilities and time-saving devices, and to these must be added an increased use of improved labor-saving plastics, for, I think it will not be denied that plastics are more used than ever before. These conditions are so

**Dentistry  
Recognized as a  
Science.**

marked that one may well wonder what will be the outcome of it all, and may justly ask, if the colleges are not turning out a horde of men, many of whom must be doomed to the ranks of the impecunious! The counteracting conditions are found in a widespread awakening of the public to the great value of the teeth, shown particularly in a stricter care of children, and a desire to profit by the vastly improved methods, by which almost any tooth may be saved. To all these must be added the important factors of the increase in population, and the vast increase of wealth. Never before in the history of our part of the world were there so many well-to-do people, and so many comfortable homes as at the present time. People who can afford to have a piano and books and pictures in their homes are sure to desire to save their teeth, for refinement always develops personal pride. In every community will be found many people who will make sacrifices and economize in other ways in order to save their teeth. They hope some day to be rich, but if they must remain poor, they want to keep what even riches cannot give them. I think we need not wonder then that there is still work for all.

What we call civilization has been secured to us only after many long centuries. What has been achieved in our profession has been done in sixty-one years!

Easily within the memory of many men still living have we risen to the rank of a learned profession and been accepted as one of the most useful. Independently and by our own efforts we have contributed as brilliant a page as can be found in the history of surgery. No power on earth can take from us the credit of giving to the world that unspeakably priceless boon anaesthesia. If we had done no more than that we would be entitled to the gratitude of the world. But we have done more, infinitely more, the blessings from which will never be recorded, passing as they do unnoticed in every community. It is needless to specify here, for the achievements are so obvious that they will be suggested to the mind of every one who takes interest enough to hear me through. We have risen so rapidly because we have done so much for the comfort of the race.

It is not alone that we have won from the general public that recognition and support so necessary for our existence, but there has come to us unsought the recognition of the medical profession.

I am tempted to quote from an address on the "Claims of Dentistry," delivered by Dr. Oliver Wendell Holmes before the dental graduating class of Harvard University in 1872—just twenty-nine years ago this month. Our profession was then thirty-two years old. I had the great pleasure of hearing this address delivered, and this

winter, at a book auction, I was fortunate enough to buy an uncut copy of it. Dr. Holmes said:

"But this commencement of the dental school has a real significance, though it makes but little show and does not appeal to any vulgar interest. It publishes the fact that a new pursuit has been assigned its place among those chosen professions which a fully organized educational institution may fitly take in hand, and provide for teaching. And you may be assured that before our old university would take such a step its governing boards had satisfied themselves that the time was fully ripe for it. The dental profession had achieved its success and won its place in the estimate of the intelligent public before its teachers were asked to share the labors and the dignities which belong to the faculties of this great institution."

If Dr. Holmes's welcome was so hearty and his praise so generous then, what would it be today? He further says; "The greatest difficulty in handling the subject is the extent of its literature, and the infinite detail of ingenuity which has gone to the bringing about of the perfection of its mechanical processes. The value of the teeth to human beings is so prodigious that as soon as attention was fairly turned to their proper management and the methods of repairing their losses inventive talent precipitated itself, so to speak, upon the new department of human industry."

Surely we could ask for nothing more than this. Coming from such an eminent source it atones for whatever neglect was shown us during the early years of our efforts for recognition.

It is safe to say the world has never seen a profession develop so rapidly. If we look deeply for the reason for this it will be found in the fact that it supplies an almost universal human need, and its methods, more like those of surgery than of medicine, are more exact, and, therefore, more promptly convincing.

The centuries bear their inevitable fruit. They have brought the modern man. He is noted for his good sense. He has a level head. He is plastic and ready to adapt himself to new conditions. He recognizes that life is an evolution, and that the conditions determining it are ever changing, and he puts himself in accord with the age in which he lives. He does not moan and bewail the "times that were." He looks forward and is on the alert for that which promises something better. He eliminates the old, if he has outgrown it, and invites the new, if it can better his condition. He knows that what is best is always right. It would not be right if it were not best. He is an optimist through and through.

It is this spirit that is at work in our profession, and that has made us what we are, and that will keep us sound and wholesome and will make us more useful and, therefore, more powerful as the years go on.

Naturally at this point it might seem proper

**Relation  
of Dentistry to  
Medicine.**

to consider the question of our relations with medicine and surgery. The limits of this paper will not allow such a discussion. I think the general trend is toward closer relations, and I be-

lieve that eventually dentistry under the name of odontology will be accepted and taught as a specialty of medicine. But it cannot be denied that there are many eminent men in our ranks who believe that dentistry is distinctively different from the other specialties of medicine, and should be taught independently. One of their strongest arguments is that the specialization of knowledge has become so vast that there is not time, or need, to take a degree in medicine in order to be able to fulfil all the requirements of dentistry. They also claim that an independent course leaves us free to develop in accordance with our needs and in touch with the new, fresh spirit of the age, and saves us from the restraints and scholastic formalism of the older professions. But I must not be tempted into a discussion of this subject.

What has been done is a matter of history, and cannot now be changed. What our course in the future will be will depend upon the working of forces too inevitable, too complex, and too far reaching to be changed by us. But it need not be with us now a matter of deep concern whether we are taken into the fold of medicine or not. We have been weaned and are grown up, and in either case we will be able to take care of ourselves. The powers of the earth and air are with us, because we have chained their forces, and nothing can check our onward course.

This brief sketch of what has been accomplished in our profession brings us down to the opening of the new century. We have great reason to be proud of the past, and greater reason to be hopeful of the future. A profession that could accomplish so much in so short a time need have no fear of its future. Portentous events in all departments of human effort crowd with startling frequency in these rapid times, but if one looks deeply I think it will be seen that the factors that make for what is best in modern civilization are the ones that survive.

And so in our profession—that which will make it most useful, most beneficent, most sympathetic toward human suffering and will most dignify it, will remain. To doubt this would be to doubt the facts of progress.

**The Present  
and the  
Future.**

There are dangers in the present, as there have been in the past, and as there will be in the future, so long as human nature remains what it is. But there is a saving force ever at work in human affairs. Matthew Arnold called it a drift toward

righteousness. Emerson said civilization carries with it a cure for all its ills. I think an unbiased study of the trend of human affairs justifies this splendid optimism. What is needed today is more faith in this encouraging principle. It should stimulate us to look beyond the boundaries of our little circles and note the sweep of forces infinitely greater than those concerned with our petty selves. Unless we can take a broad view I think we shall miss much that is significant at this marvelous period of our development.

It may be that I take too hopeful a view of the conditions existing today, and of our future. I know there are those in our profession who consider we are on the downward track—that what is called “commercialism” is in danger of undermining our foundations, and that what is called “trade” is spreading its pernicious influence over our literature and weakening the force of our code of ethics, so that we are in danger of losing our just claim to the distinction of being a profession.

That there is much on the surface to justify such a view I reluctantly admit, but that it is true when analyzed I emphatically deny. Let us search for a fair definition of a profession, for the true meaning of ethics, and their proper relations to commercialism in general.

What is a profession, anyhow? It is an aggregation of men who have been specially educated to do special work—nothing more and nothing less. Its members are banded together for mutual help, to better secure the world’s respect and for purposes of self-preservation generally. There are professions and professions. There are those that are called learned and those not so learned all the way down by gradual gradations to those that by some are called “trades,” and lower still, if you choose to use such an unfair phrase, to what is called a “business.”

A definition of ethics is more easily found.

**Ethics  
Defined.**

When I was a boy it was “the science of right living.” In these later days the Century Dictionary gives perhaps a better definition, inasmuch as it is more comprehensive. It says that ethics is “the doctrine of man’s duty in respect to himself and the rights of others.”

In the professions, semi-professions and "trades" I have enumerated, is there a code of ethics that applies to one any more than to the others? If so, I fail to understand plain English. One can have more knowledge than the others, but it is absurd to assume that one can have more honesty than the others.

Knowledge is power, and a learned profession may have more power than one not so learned, but let it put that power to dishonest use and see how quickly it is lost! On the other hand, let any trade or business be conducted honestly, and there is no power on earth or in heaven that can deprive it of men's respect.

The real truth is that morality lies at the very foundation of human progress. Without it there could be no civilization. The work of the world would stop. The affairs of men and of nations would at once become chaotic. It is the tie that binds the earth to heaven—the great, guiding principle that lies at the very heart of the universe. It is this quality of honesty in work that is above all creeds—the one to which all codes aspire!

**Profession  
and  
Business.**

As a matter of fact the professions are not so distinct from what are called the lower callings in life. In the very nature of things they must have in common a commercial aspect. The professional man sells his services to the highest bidder,

and comforts himself with the reflection that the laborer is worthy of his hire, for he is a laborer in every sense of the word. If he gets high fees he justifies himself on the ground that he is worthy of them, else he would not get them. He thinks the public should be allowed to pay for what it wants.

If this is not good business sense, and if it is not commercial, I fail to know what is. The fact is, all the professions have a commercial side. It is the office of the church to save souls; of medicine to save life; of the law to save money. The church is doubtless least selfish of all, yet it is not free from commercialism, as one finds out when the pew rent is due. If the bill is not paid, he will get a dun as often as if it were a bill due the corner grocer. The clergy expect a fee when you are married, and one when you bury your mother-in-law. The first one you always pay gladly; the second one you sometimes pay with screams of joy!

When a professional man gives his services away he can fittingly look down from his exalted heights of learning to the low plains of business and of trade. The chances are that there will be about as

many honest men at work in the dust of the plains, as on the heights in a clearer air.

Of all things within human reach, excepting honesty and unselfishness, I put learning first. I think most of us do that instinctively and inevitably, but I protest against the sneer that is implied against trade, or business, or commercialism, when they are put in quotation marks, and spoken of as if degrading. There is nothing degrading in honest labor—it is the one divine thing in human life. The modern spirit in its best expression recognizes this. The old time aristocracies are passing away, and their places are being taken by the aristocracies of learning, and of labor. These latter are not strangers, but brothers, and are growing closer as the years go on. Walt Whitman has voiced all this in prophetic words not easily forgotten. Wealth, with its fuss and feathers, and ignorance with its prejudices, may obscure this truth, but cannot blot it out.

Trade conditions all over the world were never on as high a plane as to-day. Some great writer has said that trade has been one of the great factors in civilizing the world. Let us not, then, consider it too scornfully. It carries an antidote for its evils, for in the long run the honest man succeeds, and the dishonest one fails. Who shall say it is beneath the professions when it engrosses the time and attention of many of the master minds of the world! Besides all this, it determines the policies of nations, and binds all the countries of the earth together with its bands of peace.

**Valuable Influence  
of  
Supply Houses.** In making this defense of trade I have no desire to detract from the dignity, or the overshadowing importance of the professions. I do it partly from a sense of justice, and partly because in accounting for the rapid growth of our profession, I have to recognize the advantages it has received at the hands of what in these later years have come to be called supply houses. Their very name explains their office. No true history of the rise and progress of our profession can ever be written that leaves out the tremendous aids derived from them. I am not afraid our profession will be lowered by such a recognition.

In fact, if we stop to think without bias, the question arises, where would we have been to-day as a profession without them? They have equipped us for better work, and more of it, and there is not a dentist

on the earth who is not, or cannot be, more useful to his community because of them. I think our true attitude toward them should be sympathetic, even to the point of overlooking their extortions. These evils are sooner or later corrected, either by competing forces from within, or by compelling forces from without. All down the ages, when evils have become unbearable, some strong, self-reliant souls have arisen to end them. It has been so with us, and it will be so to the end. As well try to dam back Niagara as to stay the forces of righteousness that are ever working about us, and for us. I never buy a really good new instrument that will help me in my work, that I do not feel it is cheap at any price. I would rather let the price be settled, as it will be sooner or later, by trade competition—the great adjuster of modern life!

The real truth is that we are linked indissolubly together, and neither one could get on without the other. The world has never witnessed such a spectacle as the growth of the enormous trade interests that have sprung into existence to satisfy our demands. The supply houses are as necessary to us as is a commissary department to an army. If this be all true, why not put our Pharasaical pride aside and admit the fact, and endeavor to cultivate sympathetic relations which are sure to result in mutual advantage? If we cannot take the devil to our bosom, let us at least be fair enough to give him his due. We need some new flux that shall help us to flow into a warmer mood! "I am holier than thou" after all the long centuries still leaves a trace of ice in our blood. It was so in the beginning, is so still, but I do not believe it will be so to the end. The heave and strain of the centuries always makes some gain, and in some eon yet to come the climate will be warmer, and men will thaw out, and forgetting themselves, will come together and get acquainted, and becoming more fair minded, will wonder how they could have been such Pharisees!

We shall never lose our true professional dignity by holding out our hands to those who work with us, and for us.

**The Literature  
of  
Dentistry.** In this hasty glance over our profession it is not possible to allow our literature to pass unnoticed. From the first it has been a most important factor in our development. In the permanent literature of a profession will be found the true index of its attainments. Our literature is a monument of which we have a just right to be proud. It is doubtful if any profession of the age of ours has one to compare for a moment with it. Our journals have been models from the very first, the *American Journal of Dental Science*, started

in 1839, and discontinued with the July number of last year, having set a standard from the issue of its first number, that any profession might be proud of. It is doubtful if, in these days, due credit is given it for the vast influence for good exerted by it during the formative period of our profession.

Later, as our profession developed, other journals came into existence, prominent among them being the *Dental News Letter*.

In 1859 its name was changed to the *Dental Cosmos*. One who is so fortunate as to possess its forty-two volumes has a dental library in itself. Most of the important original work that has been brought before the profession during the forty-two years of its existence has appeared in its pages. Dr. Holmes, in the address from which I quoted, says:

"Important as are these mechanical inventions, the growth of dental associations, educational institutions and journals, mark a still more general advance of the profession.

"I have known something of the teachers of the art, of their zeal, their capacity, their disinterested desire for the elevation of their calling.

"I have for years been a frequent reader of the *Dental Cosmos*, and I can bear testimony to the great intelligence with which it has been edited.

"I have found in its pages much information, of interest and value, that I have never met with elsewhere; and I have seen a great many medical journals with a broader title page, and a vastly narrower table of contents."

This is high praise, but we know it is true. The *Cosmos* has been a helpful, progressive, and sympathetic journal from the beginning. In 1873 Dr. J. W. White, its editor, wrote as follows:

"Let those now entering the ranks of dentistry take warning. No mechanical skill, however scientific, no artistic culture, however perfect, will in the near future rank for anything more than their stamp. Commendable, honorable, remunerative they may be, but they will not long command recognition as entitling their possessor to a place in the ranks of a learned profession."

Himself a graduate in medicine, this quotation shows the spirit in which the journal was conducted in his day. Before his time it was brilliantly managed by Dr. McQuillan—the mention of whose name always makes my heart warm—and today it is no less ably conducted. I go over this ground "lest we forget!" Sometimes the rain falls so steadily and so gently about us, that we do not remember to appreciate its blessings.

My first paper was published in the *Cosmos* in 1870. From that time to this in all the contributions I have made to its pages not a sentence has been cut out, unless it was a bad one, nor a word changed, except to substitute a better one. I state this only as proof of the fact that I have always found free expression in its pages. I should not be fair if I did not state it.

And in years gone by I am not the only one whose bad English has been corrected, and whose style has been clarified and strengthened by suggestions from its editor or its proof-reader. I have known several men of exceptionally strong sense, but little learning, who have been helped by it to positions of commanding influence in our profession. Their papers have been almost rewritten before they were allowed to appear in its pages.

**Trade Journals  
Commended.** And yet it is called a trade journal, and is spoken of slightlying for that reason! Let us not deceive ourselves. A stream can rise no higher than its source. I believe our literature will be what we make it—and will not so much depend on the vehicle through which it reaches the profession.

A thought, if it be wholesome and sound, cannot be tarnished, nor made dim, no matter where it goes, or how! The association of trade interests with our literature has been inevitable. The *American Journal of Dental Science* started practically without advertisements. At that time there was little to advertise. Later, when our profession developed, and supply houses came into existence, advertisements appeared in that journal. Where else could they have appeared? In a perfectly natural manner our interests ran near together, and from that day to this they have so remained. It would have been an inconvenience to us, and a disadvantage to them, if such had not been the case. Trade journals have multiplied, but whenever they have lapsed from a dignified course, they have been sharply criticized, and have been glad to return to better ways, or have dropped out. Professional opinion, like public opinion in civil affairs, wields a tremendous force, and is our greatest safeguard. The trade journals, by their wide circulation, which has been made possible by their trade interests, have carried the thoughts of our best men to the uttermost parts of the earth. In slang phrase, a good thing should be "pushed along." It behooves us to originate good things, and we should not be unhappy when they are pushed along. A man who believes in himself naturally wants his thoughts pushed along. The world would have no use for him if he did not. The very thought of this suggests the contrast that exists between the eager, vital, adap-

tive professional man of the opening of the twentieth century, and the formal, bewigged, unapproachable wiseacre of the beginning of the nineteenth! The whole tone of the trade journals has been improved within the last few years, and I believe this improvement has been largely due to the example of a journal in which a few earnest men have worked for the common good.

But they had to engage in trade, for the manufacture of a journal is a business like any other, and calls for constant supervision and direction; for a journal, no matter how good, or how independent, does not run itself. Though started to soar into the sky, it would run into the ground if some faithful souls did not stand at the helm. This again suggests the inconsistency of sneering at trade conditions.

In the early days, before trade interests were in evidence, our journals had to depend for success on their table of contents alone. In perspective, and by comparison with the present day, that fact gives a somewhat exaggerated value to the efforts of the men responsible for them, for it is seen at once that they had to assume the cost of publication, and take the chances of success or failure. There had not yet arisen an unwritten, and in some respects unrealized, partnership between trade and professional interests. That came later, and in a perfectly natural way. It was inevitable that it should be seen that there was no need of two sets of journals when each could remain independent under the same cover.

It was from the beginning an incongruous partnership, but self interest on both sides made it possible, and has kept it in existence to this day.

If our literature is studied carefully, it seems strange to me that there should be any doubt about the advancement of our profession. The way to determine this is to compare the literature of the early days with that of the present time, and when that is done, it is easy to see that, as might have been expected, the present is infinitely in advance. For instance, compare the last ten volumes of the *Cosmos*—not to mention others equally worthy of comparison—with the first ten volumes of the *American Journal of Dental Science*, and it will be readily seen what immense strides have been made. And yet the last named journal had a new field which was then absolutely unworked!

The journals of the present day, by employing the wonderful mechanical methods of picture-making, have disseminated an enormous amount of exact knowledge. Perhaps the dead fathers would wonder at nothing more than this. Of course there are journals and journals. There are those that depend on clippings and reprints. They may not

do very much good, but I am not aware that they do any harm. Those who read them and get some benefit, perhaps, might not read any others. Mr. Lincoln said to a would-be poet who desired an opinion of his poetry, that it was "excellent for those who liked that kind."

There are other journals that are conducted solely in trade interests, but they add nothing to our permanent literature, and I am not considering them. In this hasty glance I am concerned only with those that have the respect and support of the profession, and have helped to disseminate its literature. I think we should be profoundly thankful for our journals of the better class, and glad that editors are paid to do their best work and can be free from anxiety about financial success or failure. Today in some of the most advanced colleges the professors are paid salaries, and become, thereby, free from thought of the number of students, and can give all their time and energies to their work.

By natural selection the best men are sought, and must be had at any price. To a certain extent the same holds true in journalism in the lay world, as well as in the professional. Trade interests sink into insignificance in a journal conducted by a man whose knowledge of dental literature is phenomenal, whose practice is sound, and whose devotion to the best interests of his profession has been tireless, in season and out, for more than a score of years. There can be no great danger with our literature in such hands.

The close association of trade interests with professional literature is not by any means confined to our profession. The medical journals carry advertisements, and some of them are owned by advertising concerns. The last number of the *Medical Record* contained forty pages of reading matter, and fifty-two of advertisements! But who believes that its professional character is affected thereby?

The contents of our larger literary magazines is not affected by the fact that some of them are owned by large publishing houses. Literature is something above and beyond all publishing concerns. Our literature is distinct from the interests of trade, and in our best journals is not affected by it. The best educated men obtainable are secured to conduct them, and money is poured out like water to make them attractive and authoritative.

**Independent Journals Useful.** And yet it is not wise for our profession to depend entirely on such journals, fine and helpful though they be. To keep them keyed up to a high professional pitch, they need the example of a journal which has no interests except those of the profession, and I hope the day will not come when the profession will

not have a journal that can be truly called its own. If I seem on both sides of this subject of journalism, it is because, in all fairness, there is no other course.

We sometimes hear complaints made that the advertisements of our journals receive the first attention and are studied more eagerly than the table of contents. I do not think it is quite fair to cast a reflection upon the intelligence of our members for this. The pictured advertisements are in one sense a part of our literature. Pictures are object lessons and many times tell their story far more effectively than written words. The man who studies the advertisements is the man who is on the alert for what is new and helpful and grasps the situation in an instant when some new device is pictured.

In years gone by it has been common to hear complaints of the display of dental goods at our large society meetings. I have never had any sympathy with that feeling, for I look upon that interest in new things as legitimate and creditable to professional men, and when exhibitions are made at the proper time and place in connection with our meetings I think they become valuable aids in stimulating our interest in the operating department of our specialty.

**Influence  
of  
Dental Societies.** One of the great factors that has helped to bring our profession up to its present commanding position is that of our societies. They have increased in numbers and in power as rapidly as our

colleges. They have had no interests but those of the profession, and they stand as imposing monuments to the unselfish devotion of the men who desire to lead the true professional life. They embody all that is best in the profession. We are so accustomed to them that I think we do not always appreciate their full significance. They are not obligatory—they are free offerings and they thrive on man's unselfishness. There are always men ready to support them and to make sacrifices for them. I know of nothing more inspiring and more hopeful in our profession. They crystallize and formulate what is in the professional mind in a manner so direct and natural that we must acknowledge their authority. Men who receive the benefits arising from membership in a liberal profession assume an obligation to be helpful to that profession as binding as if acknowledged under oath.

**Written Code  
of Ethics**

**Condemned.**

In no way can they fulfil that obligation better than by active membership in the societies of their profession.

To the true professional man an unwritten law is as binding as a written one, and for this reason I have no use for a written code of

ethics. We have outgrown such things. An honest man carries the code of ethics in his own heart and does not need it printed in big type and hung up in a conspicuous place for reference. A dishonest man can be dealt with promptly and effectively without a printed code. He will drop out from the society of gentlemen by a process of natural exclusion. What would you think of inviting gentlemen to dinner and placing at each plate a printed card defining gentlemanly conduct? Let us throw off these old fossil shells that are interesting only as they indicate a stage of our development. A code of ethics was a nineteenth century necessity; it will be a twentieth century superfluity.

Inventions and patented devices have been

**Patents  
Important to  
Dentistry.**

most important factors in our development and call for consideration at this eventful period of our history. The subject is one that has disturbed the waters of our profession for years, though in the

last decade it seems to be in the way of settling itself in accordance with the growth of modern ideas. It is a subject I approach reluctantly, for I am aware that there is a difference of opinion on it. Some of the ablest and most earnest men in our profession consider that it is unwise, and even unprofessional, to take out patents for new inventions and appliances. Others equally eminent and earnest, and equally honest, consider that it is unwise not to do so.

So far as I know there has not for many years been any serious discussion of the subject, though from time to time there have been expressions of opinion from those who oppose the practice. Possibly those who favor the practice have not considered it necessary to defend it, since it has come to be so generally accepted. Since every man should have a reason for the faith that is in him, let us look carefully into the matter and see if we can find the truth between the two extremes.

**Patents in  
Medicine.**

Those who condemn patents point with pride to the professions of medicine and surgery and claim that we must follow in their footsteps if we are to maintain the dignity and inviolability of our

profession. They cannot tell exactly why, except that this tradition has been handed down and has been accepted without question and must be respected. Physicians will tell you that the recognition of patents would destroy the traditions of medicine—that in the early days medicine was a co-worker with religion; that physicians and priests vied with each other in their efforts at doing good, and that as religion would give all it had for the good of humanity, so must medicine give its all. If a

new remedy were found or a new mode of practice discovered it must be given for the benefit of humanity.

They will further claim that they must be free to treat disease unhampered by any restrictions. And, finally, they will tell you that medicine must have an ideal, and that if it is not always lived up to it still must be theoretically sustained—that only in this way can a liberal profession be kept up to a high mark. There is much truth in all this, and it is not easy to break the force of such arguments, for they are on high ground and appeal to all that is best in us. But will they quite bear analysis?

For instance, as before hinted, religion has not given all it possesses to the world. Clerical fees are as inevitable as those of medicine, or those of the law. The church owns a large percentage of the world's property and is growing richer as the centuries go on, and in many countries its property is free from taxation.

Medicine all down the ages has been considerate of the poor, yet as a profession it is well paid, and its affairs are conducted on business principles, and the tax it levies yearly on humanity is something almost beyond belief! Both professions have always received more than they have ever given away. Why should medicine ask its members individually to do more than it does as a profession? It is true that medicine establishes hospitals, the doors of which are thrown open to those who need, but there was never yet a hospital that did not pay as a training school for medicine, or as a means for strengthening its hold over the community in which it was located.

If we study the history of medicine, I think we shall see some reasons why it established certain precedents which later grew into traditions. In the early centuries it had to contend with ignorance and prejudice, and it had to safeguard itself, and it naturally followed the example of religion and surrounded itself with all available forces to retain its sanctity and to make sure its hold on the minds and hearts of men. It had to formulate an exalted code even if it could not always live up to it. Following it down the centuries it would be easy to predict its attitude toward patents. In the first place it never had much, and never will have much to patent. Mechanics enter but slightly into its equipment.

We are in the habit of calling medicine and surgery our parents. When they were young, patents were unknown—even unthought of. Later, when patents became known and legalized, they were taken out in fields entirely foreign to medicine and surgery, and for purposes entirely alien to their needs. If they were young and just starting in

life as we are, and had our needs, since patents are in the air they might be a little more susceptible to them, for I have not observed that they possess any more virtue—if it is a question of virtue—than their vigorous young child! This is said with no disrespect to medicine and surgery, for I put the physician and surgeon and dentist on the highest pedestals on earth—even above that of the priest. ~~and the~~ All foundily religious man needs no priest, but he may at any moment need a physician, a surgeon, or a dentist. But we know that physicians and surgeons are human, and we also know that their education is partly traditional and always within close professional lines, and I do not think they are always broad minded. I once knew an old doctor who would let a patient die rather than consult with a homeopath. He was a graduate of a great medical college and he thought he must maintain the traditions and the dignity of his calling and reflect credit on the institution from which he graduated. Such things belong to the past—not to the vital, urgent present. They belong to the nineteenth century—let us hope they will disappear in the twentieth!

I believe a profession sometimes suffers from its members being too professional. There is something in the extreme professional spirit that sometimes prevents men from seeing the world as it actually exists round about them. Without knowing it they are afflicted with a sort of mental myopia—they invest themselves with a halo that, like an Indian summer haze, prevents clear vision. Perhaps I can better illustrate what I mean by saying, if I were an artist I would draw a picture of a cathedral with an owl in the pulpit for a minister, prating of his wisdom, but unable to see the sunshine that glorifies every aisle and makes beautiful every arch and every fresco! Between the spontaneous altruism of the heart and the unconscious egoism of the head exists a beautiful region where sanity reigns supreme! Heaven-born sanity! Blessed common sense! Yet the most uncommon of all the senses! I would rather pray for it than for daily bread. I will get the latter anyhow—if I run out of it, someone will give it to me—but who can give me common sense? If I were a sculptor, I would strive to cut in marble a modern Deity, that, combining the grace and beauty of the Hellenic period, should express the poise, the serenity and the authority of this new scientific age! Alas, how few of us would worship at such a shrine!

**Patents  
In Relation to  
Ethics.**

This subject of patents is one that I have studied very carefully for many years, and I have been on both sides of the question, but as I grow older, and study the subject more deeply, the more convinced am I that there is nothing unprofessional in

taking out a patent, nothing that will render a man less useful to his fellows, or render him less ethical. The very definition of ethics constitutes an argument in its favor—the “doctrine of man’s duty in respect to himself, and the rights of others!” According to this a man’s first duty is to himself. There is no law, written or unwritten, more clear than this, and more universally accepted. It may not be strictly in accordance with the literal doctrine of the Sermon on the Mount, but it is strictly in accordance with the practice throughout Christendom. It makes home-building possible, and lies at the foundation of all individual and all national prosperity. The inalienable right to one’s own precedes all others. The unwritten law, secure in the universal conscience, confirms the written law of the land, and makes it authoritative and irresistible. The law of the land recognizes no profession—it only recognizes man. He and his rights are before all professions. His duty to himself is before that to his neighbor. Not all the reasoning since Adam can obscure the fact that a man has a right to the products of his own hands and brain. It is absurd to assume that the taking out of a patent can lower a man in his profession, or make him less useful in his community. It might, on the other hand, make him more useful, and might extend his usefulness to other communities. And that after all is the true ethical test.

To take out a patent does not deprive any one of any right, because no one yet has any right, except the patentee. By his invention he has produced something absolutely new in the world. If he had not he could not have gotten his patent. He has made something out of nothing, and his title is without a flaw. It is better than the title to inherited property, for that comes without effort; better than that of the miner, for his gold and the land from which he takes it, strictly belongs to the state, and his title is only by sufferance; and better than that of a nation to a newly-discovered country, for that belongs to its natives. It is as good as the best title on earth—that to property earned by the sweat of one’s brow.

Here, then, is property suddenly brought into existence, with a flawless title, and with the certainty of being a benefit to the world. This is sure, else the patent would not have been granted.

Instead of looking back to the example of medicine and surgery, in order that we may be helped to a correct view on this subject, I think we should consider the vital present in which we live. Here we shall see that life is a struggle for proper adjustment with surrounding conditions, and that in its highest form it is moral, as before said, and is concerned with the nice adjustment that shall give to each his due—honor and sympathetic appreciation to him who works in a large way, and who can be paid in no other manner, and substantial reward to him who racks

his brains, and soils his hands, and submits to family abuse for "inventing for an ungrateful profession!"

**Copyright**

**Similar to**

**Patent Right.**

There are still other considerations that point to the acceptance of patents in the future. The whole world recognizes that the United States system of patent laws has materially helped on civilization, and the somewhat recent affirmation of the principle of copyright has been along the line of a more intelligent consideration of the whole subject. I have never been told wherein lies the difference between the principle of copy-right and that of patent-right. A patent-right is the concrete expression of a thought; a copy-right is a diffuse dissemination of an idea. One is as distinctly property as the other. No physician or surgeon would write a book and not copyright it. He would be laughed at if he did, and besides, he could not get a publisher, for no one would be so foolish as to undertake such a work without some certainty of protection in his rights of publication.

The international copyright question, the satisfactory settlement of which in the last few years has given such widespread encouragement to authors, and such satisfaction to the public, is a question exactly like that of patent-right, and is founded on the idea that a man has a sacred right to the product of his hands or brain.

Protection of one's own is growing stronger as the years go on. It is a natural evolution, and is unassailable because it is right. The walls of the old-time traditions are falling about us, and men are not asking what they can do to be saved, but what they can do to be free—what they can do that is right—because that makes them free and secure in what is right!

**Patents Produce**

**Perfected**

**Instruments.**

There is another point of view from the practical side of the subject. In reply to a question, one of the most celebrated surgeons of New York said to me that tradition was partly responsible for the fact that surgical instruments were not generally patented, and the other reason was that so few were used that there was no great inducement. He said that if surgery required the immense variety, and the enormous numbers that dentistry must have, he believed they would be patented, and if the question ever came up for a fair vote, he believed the right to patent would be maintained.

A gentleman as familiar with the affairs of medicine and surgery as any one in New York told me that surgical instruments are now sometimes patented, and the patents turned over to the instrument makers. This, he said, is done to secure accurate manufacture, and to protect the

reputation of the inventor. By giving a device to the public so that it can be made by Tom, Dick, and Harry, it is often poorly and irresponsibly made, and may be changed to meet the whim of any one, and the result is that instruments get on the market that do not accurately embody the ideas of the inventor, and that do him no credit. A man, therefore, who gives his invention to the public, does so at considerable risk to his reputation.

It is a notorious fact that unpatented surgical instruments are not as well made as the patented instruments used in dentistry. It is fair to say that no profession in existence is equipped with as good instruments as the patented ones we use every day. There is still another aspect to the practical side of this question. Manufacturing houses are disinclined to undertake the bringing out of new things unless they are protected by patents. They are unwilling to make the special machinery necessary to cheapen the price of manufactured articles unless they are so protected. This is the business side of the question and must be looked at without sentiment.

**The Author's  
Experiences  
With Patents.**

A leaf from the book of my own experience will illustrate this. I found in the beginning that in order to have my separators manufactured as I wanted them made, I would have to patent them. I finally did this, and when I sold the patent to the S. White Dental Manufacturing Company, it submitted patterns for revision and re-revision, and when I said they were right, it went forward and perfected machinery for their manufacture. The company knew it had a good thing, and it went about the matter in a business-like and permanent way. The result has been that a uniformly good device has been within the reach of all. The company put a good price upon them, but it is safe to say that most people thought they were worth all they cost. They would not have bought them if they had not thought so. The hundreds of commendatory letters that came to me from all parts of the world, testified to the fact that the company had "made a hit." For many years I regretted I had taken a patent on them. Sensitive to the sentiment opposed to patents, I went so far as to declare in public that I should not take another patent. That was a sentiment that would not bear careful analysis, and to-day I am profoundly thankful that I patented the separators. I have had the satisfaction of knowing that they have been as well made as such a device could be made, and that they have been a benefit to the profession. I made practically nothing on them after deducting the patent fees, and the cost of the experiments, but that does not matter.

Another example from my own experience which will add testimony

to the wisdom of taking a patent on a useful device, is that of the "hand matrices" which I presented to the profession many years ago unpatented.

The result has been that no manufacturer has been anxious to make them, and the profession at large knows nothing of them—except a few friends here and there who have had them made in their own way. Had they been patented, I believe they would have been in nearly every dental office today, for I am egotist enough to think their merits would have carried them around the world. Here, then, is a patentable device, simple, easily and cheaply made, and one of the best things I ever invented, and yet it goes a-begging for a manufacturer. It has been all these years one of the most useful and time-saving devices in my office, and has been used ten or a dozen times where I have used the separators once! This goes to show that the very object sought in perfecting an invention is lost if it be not patented. The humane principle of the greatest good to the greatest number becomes narrowed to the least good to the least number. No matter how earnest and unselfish the effort to benefit one's profession, or the world, if this course is taken, it defeats itself. The value of an invention depends on its dissemination. The best one ever made is worthless if it be not used.

I have reserved until the last the consideration of one phase of the question, which it seems to me embodies the most serious objection to patents. I refer to the granting of patents that shall hamper men in the treatment of diseases of the human body.

I referred to this in enumerating the arguments the average physician would make against patents.

For several years the editor of the ITEMS OF INTEREST has been very active in endeavoring to secure a change in our patent laws by which this objectionable feature will be forever done away with. This change does not contemplate the restriction of patents on improved devices, but aims to check the taking of patents for processes for curing disease.

It is not easy to make the distinction between these different classes, but a careful reading of the bill, as presented in the United States Senate and the House, will show that there is a distinction. The bill, if passed, would prevent the taking of patents in medicine and surgery of methods of treating disease. Applied to dentistry it would prevent the taking of patents on methods of filling teeth, because the checking of decay by filling, is a method of treating disease. It would allow a surgeon to cut off a leg, an ophthalmologist to take out an eye, or an odontologist to fill a tooth, by any method that seemed best. It would not restrict the patenting of manufactured devices that would be helpful in either operation.

I am not a lawyer, and am not trained in making technical distinctions, but it seems to me that this modification of our patent laws would clear the air and bring us to where we want to be "at!"

It would satisfy those who by education and association shrink from patents, and it would recognize the rights of those whose inventive genius can do so much to extend the usefulness of either profession.

It seems to me that I have presented arguments that are sufficient to justify the acceptance of patents as proper in our profession. I will add a sentence or two uttered by one of the most eminent physicians I know. He said: "Patents are unnecessary and even out of place in medicine; they are not in dentistry, because it employs the mechanic arts to such an extent." It seems to me this is a fair statement. To some, of course, it will not be convincing, nor will all that I have said carry conviction. But without waiting for argument the question seems to be in a fair way of settlement by almost universal consent, for it is evident patents are generally accepted in dental practice as being right, and therefore ethical.

I never heard of any harm being done by a just patent. There are many unjust ones, and the possibility of such being sustained, constitutes to my mind a real objection to them. The Patent Office cannot always discriminate. It inclines toward a liberal interpretation of the patent laws. It has always done this, for it is in accordance with the American spirit. It leaves to the courts the settlement of questions it cannot undertake to pass upon. It sometimes grants patents on inventions that are not new, and on many that are worthless, and these coming into the possession of unscrupulous men, are employed as a species of legalized blackmail to extort money from our profession. This has been carried to such an extent that a protective association has been formed to free us from those dishonest exactions. It has no contention with just patents; it acknowledges the rights of those. The work it has done has been tremendous, and its benefits have been felt in nearly every hamlet in the land. It is not possible to speak too highly of the singleness of purpose and the unselfishness that has characterized its action. Of course it will be said by those who oppose patents, that its labors would have been unnecessary if the taking of patents had not obtained. That is true, but on the other hand who can estimate the loss to our profession that would have followed such procedure? Besides, we must deal with things as they are. The man said, "Don't twit me about going near the machinery and losing my arm—it is off!" Mr. Cleveland said we are confronted by a condition, not a theory.

There are other evils that must be mentioned here. I refer to the

buying of valuable inventions by manufacturers for the purpose of suppressing them, and leaving the field clear for other devices that aim to do the same work and that are already under process of manufacture, or on the market.

These are evils that cure themselves by the inexorable law of trade, but they exist and they help to offset the real advantages that accrue from the widespread dissemination of valuable patented devices.

In this world good is seldom unalloyed. Hades is said to be near to heaven. I am not a member of the Geographical Society, and I cannot say that it does not actually adjoin it on the south!

I shall be misunderstood. I expect that. Because I advocate what is right and good in patents, I shall be in danger of being credited with endorsing what is bad. But I cannot stop because of that.

In this discussion I am contending for the inherent right of a professional man to take a patent, and for the fact that patents have been of enormous help in the development of our profession. This puts the matter in a nutshell and I wish to emphasize it lest I shall be unfairly quoted. When men by entering a profession become angels, they will be subject to a different code than while they are just plain men.

Another objection that must grieve all large-minded men is that of taking a patent for every little tuppenny improvement. It is something a broad-minded man would not waste his time with. My contention is for the justice of the broad principle of patents, not for its petty application. Broad-minded men see that there are larger things in our profession than patents. They are only incidents that drop into their natural places and help on in their own way. Our profession is a peculiar one. It is unlike any other. It draws to itself from all departments of learning and from all branches of mechanic arts. It is founded on a widespread human need, and in formulating its code of ethics it is entitled to the widest range. It has a right to marshal to its aid all the forces that can be utilized in making it better able to overcome the ravages of disease, and to comfort and aid those who are in need of its good offices. And it should honor those who give up their lives to its service, and it should reward those who have the inventive genius to put into its hands improved instruments and better methods for doing its work. The dignity of the profession will take care of itself, so long as it keeps on being helpful to the world. Nothing dignifies a man, or a profession, so much as an honest, earnest desire to be helpful to those in need. If patents can aid in this they will remain—if not, they will disappear.

**Use of  
Secret  
Preparations.**

Although I have kept you so long, I am reluctant to close this paper with referring to a subject which often comes to our notice in the journals and before our societies. Complaint is made from time to time of our use of secret preparations, amalgam, etc., etc. I do not think we fall below the true professional standard in this more than do our medical friends. It is not an uncommon thing for a medical man to patent some combination of medicine and be excommunicated, and then for the rank and file of regular physicians to go on prescribing the patented medicine.

Such medicines were prescribed several times in my family by the family physician, and when I pointed out the seeming inconsistency, his reply was that he knew what the combination contained, and it was a good one. I think the same holds true for the most part in our profession. I think we are not to any great extent in the habit of using preparations, the ingredients of which we do not know.

A bad medicine will have a bad effect and that will limit or terminate its use. No one, though he be a fool or a knave, could afford to use a bad medicine very long. In the matter of amalgams it seems to me there is no great danger to the public or to our profession, if the ingredients be not known. I see no reason why a dentist should know the exact proportions of the metals used in an amalgam—and that is all there is that is kept secret. Everybody knows what amalgams are made of, and the profession could not be long cheated by the use of deleterious metals. The perfect working of the machinery of modern life depends upon faith. Men must trust each other or the business of the world must stop. Some one must be trusted to make the amalgams we use. To make them ourselves would be like going back to barbarism, the keynote of which was distrust. A dentist who can make his own amalgam and clean his hands after it cannot have a very large clientele. In my judgment there is no need of this anxiety, for the dentist who uses the amalgam is the master of the situation. He is the best and the final judge of its quality. If it is poor he will not use it; if it is the best, he will have no other. I think the profession ought to be glad when a practical dentist of vast experience and spotless reputation is willing to turn aside from his professional work and make a long series of expensive experiments for the purpose of making a better amalgam. Such a man should be a competent judge of what constitutes a good amalgam, and I do not think he is called upon to give to the public his formula. If he does, anybody can make his amalgam, and make it poorly. His rivals might be glad to eliminate him in that way. If he keeps his secret, no one has any right to sell any amalgam as his, and in that way, and in that way only, can he pro-

tect himself and his profession. To make and sustain an amalgam of such high order is to stimulate the manufacturers all along the line, and the result is apparent at once throughout the profession, for I think it is safe to say that never before have we had such perfect amalgams as during the past few years. I think it is more creditable to make a good amalgam than to make poor use of it. I think there is more need of twitting the rank and file of the profession for careless use of poor amalgam than of criticising those who are trying to make a good one. A man who has spent a long life in conspicuous professional work, and been honored in every possible way, who will turn aside for such a purpose deserves our warmest appreciation and our firm support. It may be said he expects to make it profitable. That does not lessen its value to the profession, nor detract from the credit justly due him. It is a criticism that should be made only by those who work for nothing in this world. Republics are said to be ungrateful. I often think our profession is ready to be guilty of the same selfishness. Sometimes we rouse ourselves and throw flowers on the graves of those who have been helpful to us, but we neglect to brighten their way with them while they are living and would be cheered by them.

I have dwelt too long on commercialism, trade journals and patents, and now there is no time to consider improved and simplified methods of operating, new and comforting medicines, dental legislation, the drift toward medicine and surgery, the good and bad of dental parlors, with their poor dentistry for poor people, the softening and refining influences that accrue to those who assuage pain and check disease, the finding of God Almighty in the world close about us—for I believe in spiritualizing work—and the thousand other things that make us His servants, busy as bees in working out His ways!

I am reluctant to close this paper, for I could easily find more to be proud of and thankful for at the beginning of this new century, and I could go on all night pointing out the happy share our profession has had in helping to make this the brightest age the world has ever known.

Of course those who hold the views I have expressed will be credited by some with having too much enthusiasm. We must expect to hear that we are not a profession, and to be told that we are on the downward track. We will be scolded by those who like to scold, and misunderstood by those who have not the wit or willingness to read between the lines. We shall have to submit to the humiliation of the sight of the ubiquitous dental showcase and the colored gentlemen in brass buttons who stand like black spiders at the mouths of the webs of the dental parlors! We shall have to be patient with long hair and

bad table manners, flash jewelry and sublime egotism, narrowmindedness and Phariseeism, and the countless minor weaknesses that make men so human, but—no class of men on earth have added more to human comfort and happiness, and we can rest our case on that. "By their fruits shall ye know them!"

We are a profession, and one of the most useful the world has ever known, and we were never so well equipped as at the opening of this new century, and that is exactly "where we are at!"

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## Bacteria : Their Action in the Mouth.

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By GEORGE BLUMER, M.D., Director of the Bender Hygienic and Bacteriological Laboratory, Albany, N. Y.

*Read at the Union Meeting of the Third and Fourth District Dental Societies held at Schenectady, October, 1900.*

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When I was asked to prepare a paper for your society on the bacteria of the mouth, it was suggested that I preface it with a short review of the life history of bacteria in general. I shall, therefore, divide my paper into two parts, the first, dealing with bacteria in general, the second having particular reference to the mouth bacteria and their relation to certain changes in the teeth and gums.

The organisms which we know as bacteria are

**Life History  
of  
Micro-Organisms.** now generally conceded to belong to the lowest form of vegetable life. They are of the simplest form, each consisting of a single cell, and they differ from some of the closely related but higher forms of vegetable cells only in that they do not contain chlorophyl, the green coloring matter of plants.

We divide bacteria into three main groups according to their form; the round bacteria or cocci, the rod shaped bacteria or bacilli and the spiral shaped bacteria or spirilla. The three forms are often compared with a billiard ball, a lead pencil and a corkscrew. We also classify bacteria according to their arrangement, for we find that different varieties are arranged differently, so that cocci may be found in pairs, in chains, in fours or in groups. I shall not go into the technical names of these groupings but merely mention them as one of the points of

difference separating different varieties of bacteria. The rod shaped organisms may also be grouped variously, whilst the spiral ones differ both in grouping and in the looseness or tightness of the coiling. The bacteria belong to the fission fungi or organisms which reproduce by fission or splitting. Given a certain bacterium at its earliest stage of development, its life history consists in its growth to about double its original size, following which it splits through its middle into two equal halves, each of which is a new bacterium. This process of splitting is a rapid one, so that under favorable circumstances it occurs every half hour.

Some studious German has figured that if a single bacterium could find conditions favorable to development for itself and its descendants for forty-eight hours, these latter at the end of that time would form a bulk sufficient to fill all the oceans in the world. Fortunately for us, there are constantly at work agencies harmful to bacteria which prevent any such development. The most important of these are dessication, lack of suitable food, the action of sunlight and heat and the struggle for existence which goes on in bacteria just as in man, leading to the survival of the fittest.

There are certain forms of bacteria which when placed in unfavorable circumstances have a second means of reproduction, by means of bodies which are more resistant than the ordinary bacterial cell. These are egg shaped bodies which form inside the bacteria and are known as spores. They constitute a resting stage and may be likened to the seeds of plants. As long as circumstances are unfavorable they remain as spores, but just so soon as they gain access to fresh food supplies they return to the bacterial state and the ordinary method of reproduction by fission.

Speaking from a chemical standpoint the food of bacteria is the same as that of man. They require food of certain chemical constituents just as we do. They grow best on diffusible albuminous substances, but as to the quantity and quality of food required there are marked individual differences in different bacteria. We have on the one hand the common water bacteria, which will grow comfortably in distilled water, and on the other certain disease bacteria, such as the leprosy bacillus, which only grows in the body and which we have never been able to cultivate artificially.

Three things are essential to the growth of all bacteria; namely, food, moisture and warmth. The reaction of the food is of great importance as most bacteria only grow well on neutral or slightly alkaline media. Some, however, can grow quite easily on an acid medium. The

concentration of the food is also of great import, though there are marked differences in different bacteria in this regard. Some bacteria, as the ordinary water bacteria, can grow in distilled water with ease. As a rule, however, most organisms require a moderately concentrated medium. Excessive concentration prevents bacterial growth, and this fact is taken advantage of in the preservation of fruits by permeating them with a concentrated solution of sugar.

We hear so much of the relation of bacteria to **Beneficent Bacteria.** disease that we are apt to forget or overlook their useful functions. It is hardly possible in the time at our disposal to go into the question of the manifold functions of bacteria at any length.

Their role in the growth of plants, changing the complex chemical substances of the soil into simpler ones, so that these latter can be absorbed by the roots, is absolutely essential to the existence of life on the globe. Their action in the decomposition of dead animal and vegetable products is almost equally important. Their uses in the manufacturing world, particularly in the various fermentation processes, are manifold. Of the various interesting, but not particularly useful functions, may be mentioned the formation of heat, which plays an important part in the so-called spontaneous combustion, the formation of light which largely accounts for the phosphorescence of sea water, and the pigment production, which in the middle ages led to the miracles of bloody bread and meat and similar startling appearances. Of special interest to you as dentists are the bacteria which possess the power of setting free acids from the sugars and starches, and the bacteria which produce digestive ferments which act upon albuminous substances.

The disease producing bacteria are in a class by themselves, and at this time we can hardly go into any discussion of them.

The distribution of bacteria is widespread. In the air they are present in varying numbers according to season, location, and wind and weather. Their number here is small as compared with that in the soil or in surface water, and, as a rule, the air bacteria are harmless. In the soil enormous numbers are present, largely of a harmless character, though the bacillus of tetanus or lockjaw, as well as a few other harmful bacteria, are constant inhabitants of soil. In surface water their presence is largely due to contamination from the soil, and to our unfortunate habit of emptying sewage and other polluted matter into the nearest stream. It is hardly necessary for me to recall to the dwellers in this part of the country the disastrous effects of such pollution. In the human body bacteria are found in all parts open to the air and to food, namely, the various canals and orifices opening into the surface of the body in

its various parts. I will only state here that each separate part, as the mouth, the stomach, the intestine, has its own particular bacterial flora.

**Infections  
of the  
Human Body.**

And now before taking up the special part of our paper it may be well to briefly review the special factors concerned in the infection of the human body with bacteria. These may be summed up in a few sentences. On the part of the bacteria we require a certain dose and a certain strength, or as we say virulence, in each case. There is also necessary with certain bacteria a particular method of entrance to the body, as, for example, the typhoid bacillus must be introduced into the intestinal canal, as must the organism of cholera. On the other hand some bacteria, as the bacillus of tuberculosis, can attack any part of the body.

On the part of the individual attacked we must have what we call for want of a better name, a predisposition. This may be a local weakness in the form of a wound or injury, or a general weakness, due perhaps to hereditary lack of vitality or perhaps to overwork, overcrowding, excess heat or cold or to a previous attack of some other disease. It is hardly necessary to state that different individuals and different races show great diversity in their susceptibility, or lack of susceptibility, to disease germs. One race may be almost immune to a disease which is very fatal to another. As for example the colored race is almost immune to yellow fever which is very fatal to whites. Then again one race may be liable to a disease in a much milder form than others, so that measles which with us is a relatively benign affection takes the form of a veritable scourge when it attacks the inhabitants of the South Sea Islands.

The difference in individuals is well illustrated by the story of the four men who went fishing and got wet through to the skin. One had a bad cold, one had pneumonia, one had inflammatory rheumatism and the fourth escaped. It is impossible for us to explain these individual peculiarities in many instances, though at times they are doubtless due to hereditary, certain weaknesses being transmitted in families from generation to generation.

**Bacteria  
of the Mouth.**

Coming now to the question of the bacteria of the mouth, it may be said that this cavity surpasses all others in the variety of its bacteria. While the number of bacteria in the intestine is greater than that in the mouth, the variety is nothing like so great. This richness in bacteria is not an inborn characteristic of the mouth, as it has been shown on various occasions that at the time of birth not only this but also the other cavities of the body are free from bacteria; it is due to

the fact that the mouth is contaminated bacterially not only by the air, but also by the food and drink which are taken into its cavity. The necessities for bacterial life are present in the shape of food, moisture and warmth, and furthermore the secretions of the mouth are of an alkaline reaction which is much more favorable to bacterial growth than an acid one such as is present in the stomach during digestion or in the upper part of the intestine.

Various sources of food are present in the mouth. They may be enumerated as follows:

The normal saliva.

The mucus of the mouth.

Desquamated mouth epithelium.

The softened tooth substance.

The exposed pulp in cavities.

The small particles left over in the mouth after eating.

The secretion from gums inflamed as the result of mechanical injury or disease.

If we examine microscopically a preparation of the saliva or of scrapings from the tongue or teeth, we find present enormous numbers of bacteria of all kinds. Some are round, some are rod shaped and some are oval. If we attempt to cultivate these we immediately find that two great groups are to be recognized, viz., bacteria which cannot be grown artificially and bacteria which can be cultivated on artificial media.

Our greatest knowledge of mouth bacteria naturally deals with the cultivatable bacteria, inasmuch as we are able to distinguish these from one another, not only by their form, but also by their growth characteristics and their action on animals. As a result of such examination we can again divide the mouth bacteria into harmless bacteria and harmful bacteria.

Certain bacteria are found in every mouth. Miller who has examined thousands of cases gives six bacteria which are found in every instance.

One of these is a rod shaped organism, two are thread-like organisms of a higher variety than the true bacteria, two are spiral, and one is round. Their technical names are as follows: *Leptothrix innominata*, *Bacillus buccalis maximus*, *Leptothrix buccalis maxima*, *Iodococcus vaginalis*, *Spirillum sputigenum* and *Spirochaete dentium*. No one has ever been able to cultivate these bacteria artificially, and it is doubtful if they play any marked rôle in producing disease processes. Besides these there are frequently found other bacteria of probably little patho-

genic import, which can be cultivated. Some of these are only found in the mouth, as Miller's *Comma bacillus*, whilst others, as the ordinary hay bacillus, or the potato bacillus, are common inhabitants of the air.

Coming now to the question of disease producing bacteria in the mouth, we find that many different varieties are frequent inhabitants. Thus the pneumo-coccus, the cause of acute pneumonia, is found in the mouth of a large percentage of healthy individuals, and in many of these is virulent enough to kill inoculated animals. The ordinary pus producing cocci are also present in many instances and are also in a virulent condition in a fair percentage of cases. Besides these there are many unusual and some common disease producers which may be present. The majority of these are not organisms producing single specific diseases; but rather bacteria capable of setting up inflammatory processes in the mouth cavity or the neighboring tissues. Occasionally, specific disease producing bacteria are present. Thus the diphtheria bacillus is found in the mouth or throat of a certain percentage of individuals long after an attack of diphtheria, and even at times in the throat of people who have been in contact with diphtheria patients but have never had the disease. The tubercle bacillus has been found quite frequently in tooth cavities in tuberculous individuals, also occasionally in healthy individuals. The organism causing actino-mycosis in man, the same which causes lumpy jaw in cattle, has been found in a carious tooth in at least one instance.

**Bacteria  
of Caries.** Regarding dental caries the majority of dental bacteriologists seem to agree with Miller that two forms of bacteria take part in this process. The first change according to most writers is produced by bacteria which have the power of producing fermentation of starches and sugars with the setting free of acids. It is particularly the varieties which set free lactic acid which play an important rôle. Miller was able to find in the mouth ten separate and distinct varieties of bacteria, which possessed the function of lactic acid fermentation. Their action on the teeth according to Miller, Arköry and others is to act upon the sugars and starches retained between the teeth and set free lactic acid. This in turn acts upon the enamel which is broken up and changed to a friable mass which falls, or is ground away, leaving an opening communicating with the tooth substance proper.

The second group of bacteria which possess the power of producing digestive substances which act on albumens, now attack the exposed dentine and by the production of their digestive ferments soften and ultimately destroy it. The consensus of opinion regarding the rôle of bacteria in caries is that no one specific bacterium is responsible either

for the first or second stage of the process, but that it is essentially a mixed infection due to many bacteria acting together.

Of great practical importance in this connection is the fact that the caries bacteria are found in the canals of the teeth far beyond the point at which actual decay is to be made out with the naked eye, so that in order to remove them one must either excavate a shell of seemingly healthy tooth or destroy them by antiseptic solutions. I have understood that the latter method was the common one employed, and with the help of Dr. Canaday have made some cultures to illustrate the presence of bacteria in the walls of cavities after preparation for filling, and to show the effect of the ordinary methods of using antiseptics and also the effect of a more prolonged use assisted by hot air insufflation.

The experiments were made by taking small quantities of tooth dust drilled out with a sterile drill and making plates from these. In a minute quantity of dust removed from the wall of a prepared cavity

**Effect of Antiseptics on Teeth.** I obtained 14,400 bacteria. In dust obtained from a similar cavity after the ordinary treatment with carbolic acid and clove oil I obtained 12,800 bacteria. In a cavity treated with a more prolonged use of the above antiseptics with hot air insufflation I found in a similar quantity of material 5,600 bacteria. This shows markedly to the advantage of the last method of treatment, but indicates that even that does not entirely remove bacteria.

Miller in his work gives excellent illustrations showing the different forms of bacteria in the pulp channels. All varieties are present, but mainly the rod shaped and round forms, and those different forms have not, as a rule, received specific names, but are merely labelled as bacillus or coccus of tooth caries with a Greek or Latin letter prefixed to distinguish one from the other.

As distinguished from ordinary caries, abscess formation and gangrene of the pulp seem to be separate forms of infection. In both instances we are dealing with mixed infections, but in the abscesses the common pus producing cocci predominate, whilst in gangrenous processes Arkövy claims to have found as the predominating organism a bacillus which he calls the *Bacillus gangrenae puluae*.

An interesting fact is brought out in connection with this disease by Arkövy. He evidently realized the fact just illustrated that the ordinary antiseptics did not reach and kill all the bacteria in an infected tooth after the usual precautions. He instituted in cases of gangrene which he reports a temporary antiseptic filling consisting of camphor, pure carbolic acid, and oil of encalyptus. This was mixed into a gummy

mass and covered with an occlusive filling of asbestos or gutta percha. In some instances after such antiseptics had been in a cavity three and one-half months, he was still able to find bacteria, and at times in good numbers.

Writers since Arkövy have not confirmed his observation regarding the presence of his *Bacillus gangrenae puluae* in gangrenous pulpitis. Zierler claims to have found with this organism a spore forming bacillus and Sieberth, who has recently examined the pulps of one hundred and thirty-four diseased teeth, claims that neither of these bacteria are to be found constantly, and that a small streptococcus is the cause of both gangrenous pulpitis and dental caries.

The disease known as Pyorrhœa alveolaris, seems to have excited considerable discussion as to its origin. Galippe, a French observer, and Miller of Berlin have both made careful bacteriological studies of this infection. Both authors came to the conclusion that like caries and gangrene of the teeth pyorrhœa alveolaris is a mixed infection. Galippe found most constantly among the organisms present the *streptococcus pyogenes*, which is one of the pus producing organisms and the cause of erysipelas. Miller found this and other pus organisms occasionally but mainly isolated other bacteria, some of which produced inflammation when injected into animals, and others of which did not. Fenchel isolated the pus cocci in a number of cases he examined and thought them the cause of the disease. Schreyer found the pneumococcus in sixteen out of twenty cases.

Summing the matter up in his clear manner, Miller concludes that the factors playing a part in this disease are threefold, namely:

1. General predisposition (from rickets, gout, syphilis, etc.).
2. Local injuries.
3. Bacteria.

A few words may be said of less frequent or less important bacterial diseases found in the teeth. Pulp stones are stated by some authors as Cunningham, Robinson and Miller to be of probable bacterial origin. I was unable to obtain any record of recent observations on this subject, but it is of interest to know that certain other forms of stones, particularly gall stones, are now held to be of bacterial origin. The stones are not composed of bacteria alone, but are generally indirectly the result of their action, being due to the deposit of lime or other salts in tissue injured or killed by bacterial poisons.

The pigmentation of yellowish or greenish discoloration of carious teeth is also probably of bacterial origin. Several of the caries producing bacteria elaborate a brownish pigment, and in pulpitis the *bacillus pyo-*

*cyaneus* is sometimes present, which is well known to bacteriologists as a pigment producer.

Finally, mention must be made of bacterial diseases secondary to affections of the teeth and occurring in neighboring organs. Such for example are osteomyelitis of the bones of the jaw, inflammation of the antrum, and inflammation of the soft parts, particularly of the floor of the mouth. Some of these secondary infections are of great and even fatal severity. They are in all instances due to the pus cocci or the diplococcus of pneumonia. Some authors as Franke-Hochwart regard the neuralgia following the extraction of teeth as being of bacterial origin. The gravity of such complications is, it seems to me, but imperfectly recognized by the medical profession.

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## Some Considerations of the Dental Outlook in Cuba.

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By DR. ERASTUS WILSON, Havana.

*Read before Third Pan-American Medical Congress.*

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It is hoped and expected that the Aurora of the twentieth century will awaken many innovations in the Island of Cuba. Among others, we, for the first time, are making efforts towards organizing the profession of dentistry upon a scientific basis.

Hitherto, although a limited number of dentists who have had the advantage of a scientific training in the United States (mostly Cubans) have been practicing here, the vast majority have been working as at a handicraft or trade, which, from their point of view, requires little time for preparation, in order to acquire the slight knowledge and skill of their teachers who had obtained their own preparation in the same way.

Indeed, several of these teachers had not, or very few, dental patients, but gained their livelihood by the fees paid them by their pupils, and by the transient public attracted to them by their skill in advertising and in obtaining authority from former venal governments to dispense diplomas as part of their business. The Island is now pretty well stocked with diplomas of this origin, whose possessors offer the public cheap prices in correspondence with the quality of their services.

These chaotic conditions are to be principally charged to the de-ranged and disorganized state of our society, due to two destructive wars and the complete breaking up of our former social system, the final

destruction of the antique moulds in which society was cast, the sudden annihilation of our former wealth, which had been developed by forced labor of human chattels.

These disastrous cataclysms disjointed everything here and in the resulting chaos many of the unemployed caught at every floating straw that seemed to offer them a means of living, and many, no doubt, believed that a short tuition in the aforesaid extemporized schools of dentistry they could acquire a profession that would bring them wealth, while to learn any other trade, several years would be necessary in order to attain to the acquired skill. Thus from all this class of recruits to our ranks, our calling takes a lower grade than any other handicraft or trade.

Under these circumstances it need not surprise any one if many of these recruits are illiterate, or that the majority of those of our calling in this island are not capable of exemplifying the best service our modern profession is able to give to the public.

As it is always, the majority of any profession or art that determines its social category, it must be the persistent effort of the better class of our members to multiply their proportional numbers by a higher class of recruits, which fortunately our new scheme of Public Instruction somewhat favors.

In it dentistry finds a place, in the official curriculum of the University of Habana, although it is there represented by only two professorships, and the selection of these two professors has been considerably controlled by antique habits of thought formed under the old influences, and of an insane chauvinism or race jealousy here still extant.

Although there are here several Cuban dentists well qualified for those positions, with diplomas from some of the leading American dental colleges, who were available and desirous of occupying them, none of these were given the most important of the two professorships in our university.

We may, however, consider it one step in the right direction to obtain a place for our art in the university classes. It is now presumable that it will guard the door to our profession, which has until now been wide open to all comers, however illiterate, who could produce a few five-dollar pieces of money as key to the situation. Some literary qualifications will henceforth be required, and a less number of abuses will creep in; but the dental class as now organized in our university will not be able to graduate competent alumni; compelling them, as it does, to acquire in the regular medical classes the fundamental elements of medicine will not alone fit them as dentists. If it were so, then every regularly educated physician would be a dentist of competent skill. A few hours

#### Dental College in Havana.

each day in the interval between the medical classes, dedicated to the dental operating room clinics and mechanical laboratory, are not sufficient preparation for dental practice.

Our specialty is eminently a branch of preventive medicine both in its operative and prosthetic aspects; but, although our students should be well grounded in the elements of general medicine and the special buccal pathology and therapeutics, far the major part of dental service to society is dedicated to the conservation of the natural organs and the construction of efficient artificial substitutes for such of the dental organs as may have been lost by want of proper attention to their care. A proper education in these practical parts of our profession can only be acquired by several years of constant clinical exercises under skilful instructors.

Dental education has been organized in the Habana University by authorities not connected with our specialty, and so far as I know without consultation with any of its members; but I regard it as one step toward a proper organization of our profession here, for which we ought to be duly grateful and that we are in duty bound to give it moral support, but with persistent recommendations for a better organization.

My own idea is that at least two years of previous technical training in the laboratory of some well-known dentist and a certificate of proficiency should be one of the requirements for admission to University classes.

Thus the twentieth century opens with encouraging prospects for our island in all its aspects and imposes upon us serious obligations to the fundamental laws of human progress.

It is our solemn duty to organize associative scientific efforts to generalize in the public mind a knowledge and appreciation of higher standards of excellence in dental operations and honorable professional dealings in order that our art may attain the legitimate social position to which its merits entitle it.

We are now face to face with this prime necessity, and in our first steps in its direction, we meet with a grave obstacle that must be combatted. It is that horde of intruders with no sufficient instruction nor regular training, many of whom are in possession of the certificates and diplomas above referred to and to which I attribute scant scientific significance; but on the authority of which they claim to be members of our profession.

We have here a certain and increasing number of competent dentists who fear to organize themselves together as such, in contradistinction to those others lest they appeal to the excitable Chauvinism or *patrioteria* which is now rampant in our Island.

In the social organization of our profession here, must we accredit

with the public these irregulars by recognizing them as fellows while all their operations and their current public advertisements are discreditable to us as a profession? Would such a recognition advance our professional credit? Or would it not rather be a public acceptance by us of the low standard of excellence propagated by these parties? Science knows no political limits; but here political and racial jealousy occupies a menacing attitude unless we assume a conciliatory tolerance of the vestiges of the ancient régime.

What appears to me a practicable solution of  
**Organization** this difficulty is the following, viz.:

**Suggested.** All those at present among us who have had a

scientific and completed training in our profession have obtained it in American colleges, consequently must be well grounded in the English language, and although dentistry has now a place in our university several years must pass before it can graduate its alumni—this without consideration of its infantile and imperfect organization; therefore we may organize in two separate dental societies, one English speaking and the other Spanish speaking, so that one may in no way antagonize or interfere with the proceedings of the other. In this way there would be two distinct classes and there would be a constant stimulant to those of one category to attain a competent degree of culture to enable it to secure recognition and entrance into the other, thus tending towards a continuous improvement, in our merits and social standing in this community.

We have now a sufficient number of American graduates here to assure the rapid generalization of greater proportion of the better class of dental work which would soon raise the credit of our profession in the public estimation and gradually force the cheap Johns into the background.

This Pan-American Congress will surely mark the inauguration of a new era here—social, professional, industrial, and agricultural.

Let us do our part of the social obligation to this new era, associating ourselves in organized form in order to facilitate and strengthen our efforts in fulfillment of this social duty.

We must accredit ourselves with our inner consciousness and with outer society and rise in the social scale while affording the better class of dental service at reasonable fees, which, however, must ever be more or less graduated to correspond with the financial ability of each patient, as this is both reasonable and honorable.

Raise the quality of dental work and prices will raise themselves to the highest limits of appreciation and financial ability of each client.

## American Diplomas in Germany.

The following correspondence has been furnished to us for publication by Dr. W. C. Barrett, Chairman of the Foreign Relations Committee of the National Association of Dental Faculties:

Department of State,

Washington, February 6, 1901.

W. C. Barrett, Esquire, Chairman Committee on Foreign Relations of the National Association of Dental Faculties, 208 Franklin street, Buffalo, N. Y.:

Sir—At the suggestion of the Consul at Munich, I enclose for your information copy of a despatch from the Consul in regard to American dental degrees in Germany, and the efforts which are being made to prevent those, who hold fraudulent diplomas, from practicing dentistry.

I am, sir, your obedient servant,

(Signed)

THOS. W. CRILLER,  
Third Assistant Secretary.

(COPY.)

No. 38.

Consulate of the United States of America,  
Munich, Germany, December 29, 1900.

Honorable David J. Hill, etc., etc., etc.:

Sir—Referring most respectfully to my unnumbered despatch of April 21, 1900, upon the subject of American dental degrees in Germany, to which I was honored with a reply by your department under date of July 17, 1900, No. 36, I have the honor most respectfully to report at this time:

1. That I have since placed myself in relation with the organized associations of American dental graduates in southern Germany, and in connection with the learned counsel of this consulate, have advised them how to conduct themselves in their relations with the Government and press, and in the defence of those of their members who have been or are being prosecuted for what is termed here an "unlawful" use of their honestly acquired titles of D.D.S.

2. That at the same time in all cases whether of gentlemen holding

legitimate diplomas or of persons holding illegal issues, I have been in constant communication with the Bavarian Department of Justice and the Foreign Office to protect the rights of all legitimate holders of such American degrees, correctly issued, to use and advertise their degrees, and to secure the prosecution and conviction of those illegally holding American certificates or honors.

My task has been a peculiarly difficult and delicate one, as there is in the first place even among educated and intelligent Germans a misconception of the character of American universities and especially the schools of dentistry, on account of many of them being, as far as their original organization is concerned, in form at least, private concerns; and among the less informed there is a strong prejudice against American degrees on this account. It has, therefore, been a matter of propaganda to bring the authorities to understand that under the republican forms of government existing in the several states, where so much is necessarily left to private initiative, these institutions, although in form private enterprises, by virtue of their charters and the right of visitation and control by the state authorities, are in fact public institutions.

Another difficulty lies in the fact that the German universities, stimulated by the reputation and success of American dental colleges, have added dental departments to their curricula, which, in theory at least, are not inferior to the average American institutions; and among others the University of Munich has recently established such a department which in equipment and the character of its instruction will prove inferior to no other.

The purpose of this instruction in dentistry at the German universities is to offer to Germans the opportunity of educating themselves thoroughly in that art and to raise the estimation of German dental degrees to the American standard, so as to induce students to remain at home.

It is easy to comprehend how this jealousy of American degrees finds its expression not only among prejudiced people, but also among holders of German dental degrees in denunciation of American degrees and dental institutions, and also in efforts to bring about a prohibition of their use in Germany.

I have good reason to believe that I have met these difficulties successfully and have been able to convince the authorities here of the value of legitimate American university honors and the titles of technical schools, and of the expediency of not prohibiting them, also of the sincere desire of the United States Government to do everything possible to prevent the issue of worthless diplomas, and to effect the closing of institutions issuing them.

My main endeavor has been to secure such evidence as might be of service in proceedings against the institutions issuing illegitimate diplomas, and I have already obtained possession of original diplomas and certificates in two instances where they were purchased in America by Germans against whom proceedings are now pending.

In one of these cases I have had the diplomas copied by photography and typewritten copies of the certificates made, specimens of which are hereto annexed marked Exhibits A, B, C, D, E, F. I have applied to the legal authorities to have the original diplomas and certificates in these cases delivered to me for transmission to the State Department, for use as evidence in any proceedings it may be deemed expedient to institute, and though such a course is difficult to effect, I hope for a favorable answer.

Owing to the urgency of the case I have also transmitted copies of these diplomas and certificates to His Excellency the Governor of Illinois, and a copy of my letter to him is hereto annexed, marked Exhibit G.

On December 10, 1900, a very interesting case was settled in the courts of Munich against one Samuel Gumpoldt, once a "Zahntechniker," now a full-fledged "American Dentist," claiming also to be the holder of the American degree Doctor of Dental Surgery. He obtained the "Doctorate" at one of those non-reputable dental schools, of which two remain to be suppressed in Chicago. "Dr." Gumpoldt went to America some time last spring, remained a few weeks in Chicago and came back with a certificate from the "State Board of Dental Examiners," permitting him to practice dentistry in Illinois. The State Attorney here made the polite request that I should testify as an expert in the case in order to establish the illegality of the defendant's claim, and as a result the "Dr." was condemned for terming himself "Amerikanischer Zahnarzt" and heavily fined. The case, of course, will be appealed, but it is to be hoped that the Governor of Illinois will cause an inquiry into the illegal practice prevailing in that State of issuing such certificates as in this instance, as the State Board is only expected to admit to examination a candidate who has spent at least six months in a regular dental school. In this instance the "Dr." made certain claims as to studies in Roumania, but I fear the State Board of Illinois has no "evidence" to substantiate these claims.

Another case now in the courts is affording me the opportunity to secure by the aid of photography the needful evidence to convict of such illegal practice the other now remaining non-reputable institution in Illinois, making a business of the sale of diplomas, and I shall have the honor to submit this report by an early post.

The rapidly growing tendency among the peoples of the German Empire to bar out as far as possible all foreign competition may, as I have already suggested, force the governments of the various states to a more determined warfare in behalf of the dentists educated in the schools of Germany only, against those bearing the distinctive honors of the American dental schools, thus ultimately affecting not only the good standing of American dentists abroad, but also destroying their usefulness, if not barring them out altogether. It is to be hoped, therefore, that the course taken by this Consulate, however great the sacrifice in labor and time, may prove both timely and judicious, maintain the integrity of our worthy schools of dentistry and preserve them in honor abroad as well as at home.

To this end I would most respectfully ask you whether you do not deem it expedient that publicity be given through the press in America in regard to such institutions, and in Germany to punish persons holding and advertising their diplomas, in order to deter foreigners from purchasing such titles and thereby to destroy the market for them. I have abstained entirely from any communications whatever to the press, but believe that the widest publicity should be given the whole subject. I have the honor, etc.,

(Signed)

JAMES H. WORMAN,  
United States Consul.

Enclosures—Photograph of diploma granted "Johannes Fuchs," conferring the degree of Doctor of Dental Surgery granted by the "Cosmopolitan Post-Graduate College," of Chicago.

(Signed)

C. A. WEIL, Dr. Med., Chancellor.  
EMANUEL KARGAN, D.D.S., Dean.  
C. A. WILLIAMS, Rector.

Dated October 25, 1899.

Photograph of diploma granted Dr. Johannes Fuchs by the Haskell Post-Graduate School of Prosthetic Dentistry.

(Signed)

L. P. HASKELL, President.  
G. A. GRANT, Secretary.

Dated October 16, 1899.

(Copy.)

Buffalo, N. Y. February 9th, 1901.

Department of State, Thos. W. Criller, Assistant Secretary:

SIR—I am in receipt of a communication from you enclosing one from the U. S. Consul at Munich, concerning the American Dental

Diploma and other matters. I can assure you, sir, that I deem it of the very highest importance to the dental profession of America, and I believe that the Consul is doing a work that will advance the interests of many American citizens. Unless I am advised that the communications are in any way confidential, I shall forward them for publication in some of our most important professional journals. I beg that any future advices that the State Department may receive of the same nature may be forwarded to me for communication to the dental profession of America. I am,

Very truly yours,

(Signed)

W. C. BARRETT,

Chairman Foreign Relations Committee, Nat. Assn. Am. Dental Colleges.

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Department of State,

Washington, February 13th, 1901.

W. C. Barrett, Chairman Foreign Relations Committee, National Association Dental Faculties, Buffalo, N. Y.:

SIR—I have to acknowledge the receipt of your letter of the 9th inst., suggesting that the despatch from the Consul at Munich in regard to bogus dental institutions be published. In reply I have to say that the department sees no objection to your publishing it. I am, sir,

Your obedient servant,

DAVID J. HILL, Acting Secretary.

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(Copy.)

Buffalo, N. Y., February 9, 1901.

Hon. James H. Worman, U. S. Consul at Munich:

SIR—I am in receipt of a communication from the Department of State of the U. S. Government, enclosing a report, or copy of a despatch, concerning American dental degrees in Germany. I enclose copy of my answer to the Third Assistant Secretary in reference thereto. I beg personally to assure you that the great number of dentists in the United States, and the graduates of American colleges abroad will fully appreciate the importance of the work you have undertaken, and will extend to you their enthusiastic support.

By this mail I will forward to you copies of the reports of this committee, which will give you some idea of what we are attempting to

do. Let me say that we now have in prison a number of those who have been engaged in issuing fraudulent diplomas, and hope the traffic is now upon the point of being broken up in America.

I beg on the part of my colleagues to tender any service on our part in your good work, and I request that I may be favored with any reports or other documents which may assist in the work in which we are engaged.

Very truly yours,

(Signed)

W. C. BARRETT.

Chairman Foreign Relations Committee, Nat. Assn. Dental Colleges.





## Second District Dental Society.

### February Meeting.

A regular meeting of the Second District Dental Society of the State of New York was held on Monday evening, February 11th, 1901, at the residence of Dr. William Jarvie, 105 Clinton street, Brooklyn, N. Y.

The President, Dr. W. J. Turner, occupied the chair, and called the meeting to order.

The Secretary read the minutes of the last regular meeting, which were approved; also the minutes of the special meeting held at the conclusion of the last meeting, the same being likewise approved.

The paper of the evening was read by Dr. Safford G. Perry, of New York, entitled: "Where are we at" (referring to the status of dentistry at the beginning of the twentieth century)?

### Discussion of Dr. Perry's Paper.

**The President.** I am sure I express the sentiments of all present, when I say we are delighted to have Dr. Perry with us, and to have heard this paper. We know he is one of the busiest men in the profession, and the sacrifice necessary to prepare and give such a paper is very great. We appreciate it, and are very grateful to him. Quite a number of our friends from New York and New Jersey are present to-night, and we extend a most cordial welcome to them, and would be glad to hear from all of them. The paper is now before you for discussion.

**Dr. J. T. Hart, New York.** A paper of this character must be read and re-read to be appreciated. I feel I have been very fortunate in being here to-night and hearing Dr. Perry's enunciation upon so many questions that are prominently brought before the profession at this time. It is full of epi-

grams that, as I have said, one must read over before they can be fully appreciated. The argument might be adduced that because we have dental parlors, and because we have a code of ethics, necessarily the code of ethics accomplishes nothing; but I do not feel that way about it at all. I think we have in our community men who act very unprofessionally, merely because they are not identified with any societies, and are not bound by the rules of those societies. Dr. Perry says you would not think of asking a gentleman to your table and publishing rules for his guidance and procedure. No, necessarily not; but if you were in the habit of asking every man of twenty-one years of age, who was six feet high and of a certain breadth of chest, to come in and partake of your hospitality, I think you would find it necessary to lay down simple rules for their guidance. Before we had railroads, it was the habit in the open country, for men who were traveling along on horseback to ask for and receive hospitality at any home where they found themselves; but so few people passed along in those times, so few were entertained, that no rules were necessary for their guidance. Nowadays, however, no man near a railroad station, keeping an inn or hotel, would feel safe to throw open his doors to all comers, without making rules for their guidance. I say that with dentistry spreading as it is, with hundreds being turned out every year from the colleges, if we do not have definite rules for their guidance the societies will break down, and perforce the profession will break down.

**Dr. Chas. Meeker,  
Newark, N. J.** I do not know when I have listened to a paper that approached my own opinions so closely, and I am very glad and happy that I came here to hear it. I do not see how I can discuss it, because I am in sympathy with it.

However, there are two points that I would like to speak of, and it seems to me looking at it from my light, that those are the points that have helped to make our profession. One is as to the influence of societies. I have never had any fear of the lowering of our professional standard, as long as our societies are sustained. The society is the thing that will keep the dental profession and the dentists themselves always in an ethical state. I have no fear of the dental parlors whatever. Of all the men who are graduated from the colleges—last year there were 4,050—nine-tenths will go right out into practice, and each one of them is an educator himself to the people with whom he comes into contact, to show them the difference between the man with the red coat and white spats, and the legitimate dentist.

The other point is that of dental societies having clinics and exhibits. I have been connected officially with my State Society for twenty-five

years. It was my feeling from the commencement that I wanted an object lesson—I wanted a clinic. I could read in the dental journals a description of a method, but it did not seem to go so well into my brain as if I could go to see the clinic. That was the reason I worked for what others said was making a museum of our State Society at Asbury Park. I admit it is a museum, but men come from the by-ways and crossroads in our State, from all those little hamlets and towns, to see those clinics. They are object lessons to them. They come to see the exhibits of the supply houses. They might see in the journals the pictures of new instruments and new appliances, but they get no idea of them by a picture. If they come and look at the exhibits, they see exactly what they are. They recognize the value of them, and no doubt buy them, and their coming to that museum and that clinic makes them better dentists. They go home with a higher appreciation of their own profession, and with new ideas that they practice in those little country towns, and also in the cities. I have always worked for clinics and exhibits in the dental societies.

I do not think I would add one word, or detract

**Dr. J. Bond Littig,** one, from Dr. Perry's paper. I felt, as I was sitting  
**New York.** here, as if I were taking an early morning journey through the country—through the valley; and as I

passed along towards the hills, I looked back upon the plain beyond, and I saw as the sun rose on the view, that there were some bare spots; but the showers had made most of the way green and beautiful. It seemed, as I listened, that Dr. Perry's paper was like that. I could see the spots as I came along; I could see the improvements that have come; I could see every little thing, and as I came up upon this hill where I stand to-night, I see the sun shining upon it, because I feel the profession is just at the sunrise of its success. As to ethics—as to that ethical idea—the law was made long before the dental profession ever was—the great Rule, "Do unto others as you would be done by," and that should be in the heart of every man.

There has been a question since we got into the

**Dr. Ottolengui.** war with Spain, whether the Constitution follows the flag. The paper of Dr. Perry brings to my mind a piece of news that I received today, that may be of interest, and will show that whether the Constitution follows the flag or not, dental education follows our flag. I believe this country was the first to have a dental college, and we have more now than any other country of the same magnitude. Other countries have colleges fashioned after ours. While we are debating what on earth to do with the Philippines, and whether we

will keep them or not, our friend Dr. Ottofy has gone there and started a dental college, and has been made the dean of it; so in a very short time, I believe dental education will be had wherever the American flag flies.

Dr. Littig epitomized the whole ethical subject, and if it is in the hearts of all men that the principal rule of life should be "Do unto others as you would be done by," it does seem a pity that the dental profession should feel that they need further explanation of the rule. That for them the rules need to be written out in paragraphs so that when a man has a desire to depart from what his conscience dictates, he can get down a copy of the code and see whether or not he can sneak in under it. It has been my experience that the code has made more sneaks than gentlemen. If the gentleman in our profession has the truth in his heart, he never turns to his book to see how he should behave himself.

Just a word about patents. All that Dr. Perry has said is fair and true. There is, however, one thought to be remembered against patents, although I am not speaking against those patents in favor of which Dr. Perry has spoken—patents on inventions. I think in many instances the idea expressed by Dr. Perry is erroneous, and that is, that the man who patents a thing really creates something new. The Patent Office not only recognizes a creation of something new, but it also recognizes the patenting of a new combination of things already in existence, and in some cases the application to new purposes of old things. The truth of the matter is, that the only thing that would really come under the rule as described by Dr. Perry, under which he claims that the man who creates the property should have the title to it, is where an invention is really discovered. I think a very large percentage—over ninety per cent—of even the legitimate patents taken out by dentists are not really the absolute creations of the brains of the inventors, and I want to say that that idea was put in my head many years ago by Dr. Peirce, of Philadelphia, and I will give him credit for it, and as nearly as possible repeat his words. He said: "Remember, when you want to apply for a patent, to ask yourself 'Could I have created it had I not received gratis the knowledge which has come to me from those who have gone before me?'"

Has this knowledge come to the patentee *de novo*, and has he created the device all by himself? If so, he has created new property, otherwise he is asking for a monopoly of something which was given to him for nothing by those who went before, and upon which he has merely made another step—a step farther—the step farther being one which he never could have taken but for the assistance of those behind him. So I do not think so much of giving a man a patent because of anything the man has

done, but I think he should have a patent in the interests of the profession, or of the community. Dr. Perry from his own experience has shown where he had two things of certainly equal usefulness, that what he patented has become useful to us all, and the one not patented has only been useful to himself and a few other men.

A man must think of his duty to himself, and also to others. We boast in this country of a great deal of personal liberty; but personal liberty is never granted to a man except where it does not interfere with the liberty of other men. You say you have the right to take out a patent. Suppose you possess a banjo; you may claim you have the right to play that banjo all night if you choose; but the Board of Health will not allow it, for it interferes with your neighbors.

There should not be a patent on things which interfere with the actions of others, and which prevent them from treating the diseases of others; but take patents for things which cannot be properly put forward and supplied to the profession without a patent, and that is true of everything that is manufactured.

Like everyone else, I am very glad to have heard

**Dr. O. E. Hill.** the paper. Much of it I agree with heartily, and very much I do not agree with at all. My friend's idea

to "Do unto others as you would have them do unto you" is very sound doctrine. The Christian part of that paper is perfect. If we were in Heaven, I would agree with it; but there is an awful loophole in there for cussedness, pure and simple! His patent ideas are good when they are in the hands of good men; they are perfectly awful when they are in the hands of bad men, and unfortunately, patents in dentistry have been in the hands of bad men, as a rule. Codes of ethics and laws are made for men who want to disobey them. If you would do unto others as you would have them do unto you, this earth would need no law. The necessity for law is that there are criminals and dishonest men. A code of ethics is necessary among men. Every man knows, or should know—every dentist knows—what it is to be a gentleman. If he is a gentleman, he needs no code of ethics, but unfortunately they are not all so, and so we need a law by which to eliminate them.

I do not believe in a code of ethics. There is no such thing necessary among gentlemen, but unfortunately this world is not full of Christians or gentlemen.

Perry, you ought to be in Heaven. I endorse you thoroughly, under certain conditions. It would be all right if you were in Heaven, but you are on earth. You are naturally so good an conscientious and your love for everybody is so strong, that sometimes I am afraid you are a

little weak. It is your goodness that does it. It is just so with patent laws. My friend, Dr. Ottolengui, stated the facts very clearly. I do not think anyone objects to a patent on a clear, simple, original instrument. There is not a man in this room but would pay the manufacturer any price he wanted to ask for it.

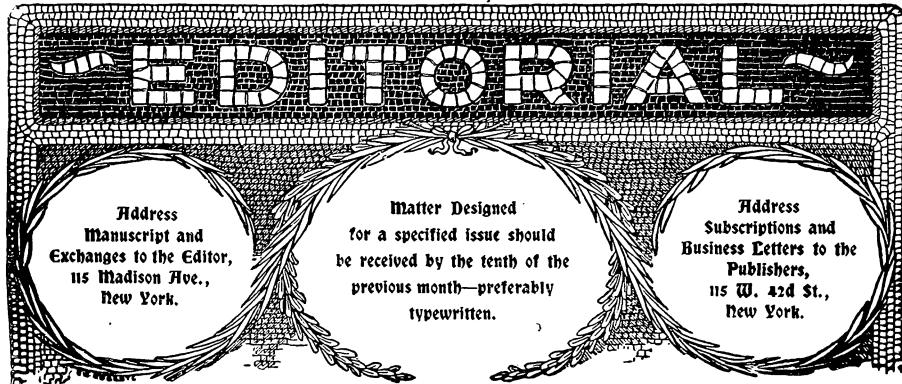
I think we are fortunate not only in having this paper, but in having so many gentlemen from other places visiting us. I want to endorse Dr. Meeker thoroughly; I am horoughly and decidedly down on all shoddyism, and I call it shoddy from beginning to end to object to having clinics and exhibitions and everything of that sort at our State meetings. They are just as much a necessity, and frequently more so, than a paper, particularly at the State meetings.

**The President.** Has Dr. Perry anything to say to close the discussion?

**Dr. Perry.** The paper speaks for itself. I have nothing further to say. Dr. Hill says no gentleman in this room will make complaint of the taking out of a just patent. That is my only contention, that we have a right to take a just patent, which is denied by some reasoners. I said that in the paper distinctly, so I think Brother Hill and I are on the same platform, even up there near Heaven.

**Dr. Ottolengui.** I want to move a vote of thanks to Dr. Perry, and in doing so I want to call attention to the fact that Dr. Perry said in his paper that it was not finished; he enumerated at the end of it a number of things on which he has stored up much knowledge; therefore I also move that we offer him an opportunity next year of finishing this paper.

Motion carried unanimously.



## Extraction of Wisdom Teeth.

It is probable that one might search the literature of dentistry almost in vain in an endeavor to find many kind words for so-called "wisdom teeth." Apparently the third molars have had few friends in the profession. It has been common practice, if not common teaching, that time expended in the filling of these teeth, in the majority of cases, would be time wasted. It has been believed that these teeth are more prone to decay, and more liable to the recurrence of decay, and that consequently the filling of large cavities in these teeth would serve but a temporary purpose. It has been frequently declared that in cases of pulp exposure, it would be next to useless to make any effort at salvation. Unless it can be proven that the accusations against the third molar are founded upon fact, we must seek elsewhere for an explanation of the disregard for these teeth among a profession which is, admittedly, less and less inclined toward extraction.

It seems probable that the difficult location has much to do with the disinclination toward treatment and filling of the third molar. Men have eased their consciences, when dooming these teeth to extraction, by declaring to themselves that their patients would have enough teeth left

with which to masticate and that, being at the ends of the arches, their removal would not interfere with the future usefulness of the other organs.

A number of experiences during the past few years have made this last dogma (which is so commonly accepted and so frequently enunciated) at least open to serious discussion. It would seem that the loss of the wisdom teeth will often prove a positive injury to the other teeth in the arch, and if this opinion has been heretofore held, it certainly has not been prominently put forth in our literature.

The first instance which led to a doubt as to the truth of the rule was in the mouth of a young woman whose upper wisdom teeth erupted with cavities of considerable depth. They were excessively sensitive, and the patient was much disinclined toward having them filled. No other teeth had been lost, and as they were "only wisdom teeth," their extraction was advised. Within a year the patient returned, complaining bitterly of a soreness of the gums in this region, and examination disclosed the fact that the twelfth year molars had moved back so as to permit considerable food to be packed and retained in the interproximal spaces. This not only caused considerable pain, but, naturally, threatened the decay of all four of the remaining upper molars.

The problem was a difficult one, but a solution was finally found. The treatment consisted in using a regulating appliance, which forced the molars back into contact, and then the occlusion in the upper and lower jaws was corrected so as to remove the tendency which had before driven the upper teeth backward. The teeth were then locked more certainly in their present positions by placing gold fillings in the lower molars and building them up so that they would have a tendency to drive the upper molars forward rather than backward.

Since that case, closer observation has disclosed the fact that this is a common, rather than an uncommon result of the extraction of the third molars, especially in the upper jaw; consequently, it seems well to call the attention of the profession to this usefulness of the third molars, and to point out that their presence in the arch locks the teeth together and compels contact which may often be lost by their being removed. Therefore, it would seem that no amount of time necessary to their salvation would be time wasted.

## Crown and Bridge Work.

Since the advent of methods of building crowns and bridges for the replacement of lost dental organs, a great deal of progress has been made in the direction of scientific construction. A great many valuable articles relating to this subject have appeared in the current literature, none perhaps being better than those which we have published from the pen of Professor H. J. Goslee, Chicago, Ill. Our readers, therefore, should be much gratified to learn that we have arranged with Professor Goslee to give us a continuous series of articles upon the subject of crown and bridge work, in the course of which he will cover the entire field, and we feel satisfied that at their completion all will admit that no more practical papers have yet been presented on this subject. The first will appear in the May number of our magazine, and in subsequent issues until completed.





Questions will be answered in this department, provided the answers would be of general interest. After publication our readers are cordially invited to make further reply, criticism or comment.

The last meeting of the Second District Dental Society was one of the most successful in the annals of the association. Four other societies had been invited to meet with it, namely, the First District Dental Society, The Odontological Society, the Institute of Stomatology, all of New York, and the Central Dental Association of Northern New Jersey. In addition to the members of these various local societies, a great many visitors came from Baltimore, Washington, Philadelphia, and cities in Connecticut and upper New York. Altogether it is estimated that nearly three hundred men were present.

The meeting was called to order promptly at eight o'clock, at which time the first paper was read, and the discussion was not finally closed until after midnight. That it was practical and interesting was proven by the fact that more than two hundred men were still in the room at that late hour, many of those who had left having been compelled to do so in order to catch trains which took them out of the city.

The subject of the evening was the treatment of the gingival margins of cavities in a manner which has been designated extension for prevention. Those who took part in the discussion were: Drs. R. Ottolengui, G. V. Black, C. N. Johnson, E. K. Wedelstaedt, E. T.

Darby, W. H. Trueman, B. Holly Smith, M. L. Rhein, and S. G. Perry. A great deal of value was brought out, many good points being scored on both sides of the question. These papers, which will be published in our next issue, should prove exceedingly practical reading.

**Two Dentists  
Appointed  
in the Army.**

The following has been received from Dr. John S. Marshall, President of the Examining Board of Dental Surgeons, U. S. Army:

"By permission of the Surgeon General, I have the honor to inform you that the following-named gentlemen have successfully passed the examinations before this Board, and have received their appointments as Contract Dental Surgeons, U. S. Army:

"Siebert Davis Boak, graduate of National University, Dental Department, Washington, D. C., of Hartinsburg, West Va.

"Edward Clarence Lauderdale, graduate of University of Buffalo, Dental Department, Buffalo, N. Y., of Naples, N. Y.

"These gentlemen have been ordered to report for duty at San Francisco, Cal., April 15th, for service in the Philippines.

"At the present writing there have been fourteen gentlemen ordered before this Board by the Surgeon General for examination. Only two, as you see by the above report, have successfully passed the examination. The Board has been disappointed in the professional qualifications of most of the young men who have presented themselves. The examination does not cover any subjects which have not been taught in our best dental schools, and the Board believes that the questions submitted in the examinations have been of a practical nature, and eminently fair. It is to be hoped, therefore, that our dental schools will not recommend any young men to come before this Board who are not thoroughly well qualified, theoretically and practically, in all of the branches comprising the curriculum of our best dental schools.

"It will be the pleasure of the Examining Board of Dental Surgeons to keep the profession posted as to its work, through the various dental journals."

**Polishing  
Aluminum  
Plates.**

Dr. H. F. Naumann, of Quincy, Ill., sends us the following description of his method of polishing aluminum plates:

"It is a very difficult matter to obtain a satisfactory finish to an aluminum plate. No matter what means are used in polishing, there is always a dull lead color, so unlike the bright appearance of this useful metal in its pure state. This can be overcome, after the final polish has been given with brush wheels, etc., by

coating the plate with a strong solution of caustic soda. Use a pledget of cotton on pliers dipped in the solution, coating the metal freely on both sides, allowing it to remain two or three minutes, then wash thoroughly with soap and water. If there still be dark spots, apply again to those places until they disappear. The solution will not affect the rubber attachments and will enhance the appearance of the finished plate fifty per cent."

**Dental Law  
in  
New South Wales.**

The dental profession of New South Wales have at last risen in their might against the inroads of quacks, and especially of the holders of fraudulent diplomas, some of which, we regret to say, came from this country, their sale having been openly advertised in the public prints in that country. The law is an admirable one, in many respects similar to the state laws of this country. As being of interest to American dentists who may desire to emigrate, the following paragraphs, giving the qualifications necessary for registration, are quoted. Section 11 reads:

"11. Any person who—

- (a) holds some recognized certificate as hereinafter defined, and who proves to the satisfaction of the board that he is of good character;
- (b) has for a period of two years before the commencement of this Act been bona fide engaged in New South Wales in the practice of dentistry, either separately or in conjunction with the practice of medicine, surgery, or pharmacy, and who has made application for registration to the board within one year from the commencement of this Act; or
- (c) has attained the age of twenty-one years and has been engaged during a period of not less than four years in the acquirement of professional knowledge in dentistry, and has passed an examination before the board according to the prescribed regulations; or
- (d) has attained the age of twenty-one years, and shall have been a pupil or apprentice for a period of not less than two years to a dental practitioner entitled to be registered under this Act: Provided that such pupilage or apprenticeship shall have been commenced at least six months before the commencement of this Act, and shall have expired before he shall be entitled to be so registered; or
- (e) has obtained a diploma or degree in dentistry from a university in Australia;

shall be entitled to be registered as a dentist under this Act.

Section 12 makes a liberal provision for the recognition of the certificates from other countries, which reads as follows:

"12. Any person who has practiced dentistry for not less than twelve months elsewhere than in New South Wales, and who holds some recognized certificate as hereinafter defined, and who proves to the satisfaction of the board that he is of good character, shall be entitled upon the payment of the prescribed registration fees and without examination, to be registered as a dentist under this Act.

The term "recognized certificate" means a certificate, diploma, membership, degree, license, letters, testimonial, or other title, status, or document granted by some university, college, or other public institution in a British possession or foreign country, and which is recognized by the board as entitling the holder thereof to practice dentistry in such possession or country, and as furnishing sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of dentistry.

Section 13 is a warning that quacks are not wanted in the country. It reads as follows:

"13. From and after the first day of January, one thousand eight hundred and ninety-seven, no person other than a medical practitioner shall be entitled to take or use the name or title of "dentist," or of "dental practitioner" or of "dental surgeon," or any name, initials, title, addition, or description implying that he is registered under this Act, unless he is registered hereunder. And any person who after the first day of January, one thousand eight hundred and ninety-seven, not being a medical practitioner or a dentist so registered, takes or uses any such name, initials, title, addition, or description as aforesaid shall be liable on conviction to a penalty not exceeding twenty pounds."

The law has just been passed, and immediately a dental board was appointed, and at the first meeting Dr. H. Taylor was appointed registrar.

Dr. Taylor was instrumental in establishing the dental association nine years ago, and has since been the secretary. He has recently made a tour of Europe and America, where he visited the leading dental schools. He was the Australian representative at the Paris Dental Congress. Persons contemplating going to Australia should communicate directly with the registrar, Dr. Horace Taylor, whose address is the Medical Society Rooms, corner of Pitt and Bathurst streets, Sydney, Australia.

**Bad Results  
From  
Chloretone.** Dr. Franklin B. Clemmer, Morgan Park, Ill., sends us the following account of his experience with chloretone:

Some time ago I was prevailed upon to try the new local anesthetic put up by Parke, Davis & Co., called chloretone.

I read all the literature I could find on the subject, and accepting the statements concerning its safety and thorough efficiency, I had the drug-

gist prepare the ethereal solution for topical application and the aqueous solution for injection. I have but recently started its use, and have more recently discarded it. Three patients have reported to me for whom I had extracted teeth, and each one had the same kind of disfigurement and the same tale of woe.

In the first case the injection of the preparation caused extreme pain, much more so than cocaine. So far as the obtunding effect is concerned, I was well pleased, and the patients remarked at the absence of pain.

I felt grateful, of course, that I had procured a local anesthetic that was safer than cocaine and still had its effect.

My peace of mind was of short duration, for the next day the lady came to my office, her face one-sided, and suffering a great deal. Upon an examination, I found the tissues sloughing over a considerable area, and very highly inflamed. She had passed a night of intense agony, being unable to sleep. The other two patients passed through the same glorious (?) experience. The fault cannot be laid to unclean instruments, for all were made antiseptic before using.

I have been using heretofore Wilson's preparation of cocaine, but never had such an experience.

I do not wish to condemn a good thing; neither do I desire to use that which will cause me to ask for police protection.

The druggist prepared the solutions according to the printed instructions, so the blame cannot be laid there. I have had partial success with the ethereal solution when setting crowns. My motive in writing this is that I may learn through the *ITEMS OF INTEREST* if other practitioners have had like experiences with this preparation.



# **CORRESPONDENCE**

## **German-American College Condemned Abroad.**

At the annual meeting of the American Dental Association of Switzerland, held in Neuchatel, Switzerland, October 13 and 14, 1900, a committee was appointed consisting of Drs. Bryan, Frick & Guye to formulate resolutions condemnatory of the Huxmann Dental School of Chicago, "The German American Dental College."

This committee reported at the same meeting as below, the report was accepted, and the society voted to make those resolutions as widely known as possible through the dental journals of Chicago and the ITEMS OF INTEREST, and address copies to the known dental societies of Chicago, asking them if possible to take some action against said school.

### **Report.**

The evidence presented by the ITEMS OF INTEREST in its July, '99, number and in two pamphlets by Dr. Weide in Germany ("In the matter of the German American Dental School of Chicago" and "Against Mis-demeanor, etc."), and in numerous articles in German and other dental journals, seems plainly to prove that the German American Dental College of Chicago has been guilty of such grave irregularities in the graduation of foreign students in conferring on them the coveted title of Doctor of Dental Surgery, as to call for legal proceedings against the incorporated concern to the end of having its charter revoked by the state authorities.

It is constantly graduating and conferring diplomas on uneducated persons from abroad, who could not possibly be matriculated in any reputable college in any other State. It graduates and has graduated men in a few months or weeks who could not possibly graduate under three years in any other dental school in America. The degrees in no way represent the minimum standard of requirements of other American dental colleges and it thus brings odium on all those holding the same title from regular colleges belonging to the National Association of Dental Faculties of America.

European state authorities cannot distinguish between the one and the other degree, and all reputable colleges in America and especially in Chicago must suffer and their graduates be classed with those of the Huxmann school.

The above and other evidence against this school has been presented to the proper authorities of the State of Illinois, and we herewith appeal to the State and local dental societies of the State of Illinois to support the authorities and to take such action as will assist in ridding Chicago of this diploma mill and show its diplomas up in their true light, as compared with schools which live up to the requirements of all reputable colleges in America as laid down in the requirements of the National Association of Dental Faculties.

We who have earned our degrees in America and know its noble and progressive institutions for dental education, acknowledge with gratitude the efforts already put forth and the work accomplished by the dental and other authorities of the State of Illinois and by the Foreign Relations Committee of the National Association of Dental Faculties in the matter of suppressing the traffic abroad in purely fraudulent diplomas from the State of Illinois, but we wish to point out that an institution like the German American Dental College, having in the past secured from the State Board of Dental Examiners and from the State Attorney, certificates of respectability, and being chartered under State trade laws, makes their diplomas, granted on short terms of attendance, and with a certain semblance of recognition from the authorities of the State, more injurious to the name of American dentistry than those worthless parchments sold outright by swindlers in the past.

L. C. BRYAN.  
THEO. FRICK.  
PAUL J. GUYE.

The above fully expresses the wishes, hopes and feelings of the American Dental Society of Switzerland.

G. O. STOPPANY, President for 1900.

PAUL J. GUYE, Secretary.



# MEMORIAM

## W. S. Read.

Dr. W. S. Read died at his residence on Tenth street in San Diego, Cal., February 16, 1901, after a long and painful illness.

While the doctor has been in feeble health for years, his indomitable will and characteristic cheer so concealed physical suffering that but few realized how great was the suffering, and that the end was so near.

Dr. Read was born in Genanoque, Canada, June 16, 1839, and came to California to make his home forty years ago. He was one of the oldest dentists in the State, having practiced his profession for more than thirty years. He was a close student, skilful, conscientious, and progressive; unselfish in his devotion and an honor to the profession; and as the body became more frail, an added firmness of perception and skill was given him.

He was amiable, gentle, patient, kind-spirited, giving freely the kind word and helping hand, with broad charity for his fellow man.

He was a fearless advocate of what he believed to be right.

He was a member of the Presbyterian Church, and while in later years much of his time was spent in his room, and in bed, his active work for God never ceased, nor did he lose interest in the profession to which he gave his life, and he maintained a practical interest in everything that related to the progress and prosperity of the city.

During these years of protracted illness he has been tenderly cared for by a most devoted and affectionate wife, Dr. Emma T. Read, who has practiced dentistry for fifteen years.

He maintained rare patience and cheer, and his faith in divine wisdom and love has been unwavering. The sound sense, the honest and kindly nature of the man, with a reputation so stainless, endears him to the community.

"He was a man: taken for all in all, we shall not look upon his like again."



## National Society Meetings.

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National Dental Association, Milwaukee, Wis., August 6.  
National Association of Dental Examiners, Milwaukee, Wis., August.  
National Association of Dental Faculties, Milwaukee, Wis., August 1.

## State Society Meetings.

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Alabama Dental Association, Montgomery, May 15.  
California State Dental Association, Los Angeles, July 9, 10, 11, 12.  
Colorado State Dental Association, Denver, July 9, 10, 11.  
Connecticut State Dental Association, Hartford, May 21, 22.  
Delaware State Dental Society, Wilmington, June 5.  
District of Columbia Dental Society, Washington, December.  
District of Columbia Dental Society and Maryland State Dental Association, Baltimore, Md., May 16, 17, 18.  
Florida State Dental Society, Tampa, May 15, 16, 17, 18.  
Illinois State Dental Society, Rockford, May 14, 15, 16, 17.  
Iowa State Dental Society, Clear Lake, May 21, 22, 23.  
Kentucky State Dental Association, Louisville, May 14, 15, 16.  
Maine Dental Society, Old Orchard Beach, July 16, 17, 18.  
Massachusetts Dental Society, Boston, June 5, 6.  
Minnesota State Dental Association, Duluth, August.  
Mississippi Dental Association, Yazoo City, June 11, 12, 13.  
Missouri State Dental Association, Sedalia, July 9, 10, 11, 12.  
Nebraska State Dental Association, Omaha, May 21, 22, 23, 24.  
New Jersey State Dental Society, Asbury Park, July 17, 18, 19.  
New York State Dental Society, Albany, May 8, 9.  
North Carolina State Dental Society, Morehead City, June 26, 27, 28.

Ohio, Michigan and Indiana State Dental Associations, Indianapolis, June 4, 5, 6.

Ohio State Dental Society, Columbus, December 3, 4, 5.

Oklahoma Dental Association, Oklahoma City, May 7, 8, 9, 10.

South Dakota State Dental Association, Sioux Falls, June 11, 12, 13, 14.

Tennessee State Dental Association, Monteagle, July 2.

Texas State Dental Association, Sherman, May 21, 22, 23.

West Virginia State Dental Society, Mannington, August 29, 30.

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### Kentucky State Dental Association.

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The annual meeting of the Kentucky State Dental Association will be held in Louisville, May 14, 15 and 16.

The usual hotel and railroad rates will be procured.

Address the Secretary.

F. I. GARDNER, Secretary.

656 Third Ave., Louisville, Ky.

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### O ! Mi ! Dental Meeting.

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The third triennial meeting of the State Associations of Ohio, Michigan and Indiana, known as the original Tri-State Dental Meeting, will be held at the German House, corner of Michigan and New Jersey streets, Indianapolis, Indiana, June 4, 5 and 6, 1901, beginning at 10 a. m., Tuesday, June 4. All practitioners who conduct their practices in a manner to command the respect of their fellow practitioners are invited to attend and participate in the proceedings, whether they are members of a State association or not. These meetings are the largest and most interesting held in the United States. Fully eight hundred dentists will be present. The programme includes some sixty clinics of great interest and importance. Railroad rates of a fare and a third for the round trip have been granted by the Central Traffic Association throughout the whole territory. For further information see the May journals, or address

GEO. E. HUNT, Chairman.

131 East Ohio Street, Indianapolis, Ind.

### New York State Dental Society.

The thirty-third annual meeting of the New York State Dental Society will be held in the assembly hall at the Hotel Ten Eyck, Albany, N. Y., Wednesday and Thursday, May 8 and 9, 1901, convening promptly at 10 o'clock in the morning of the first day. The Business Committee have arranged the following programme:

President's annual address, John I. Hart, D.D.S., New York; Report of Correspondent, H. D. Hatch, D.D.S., New York; Report of Committee on Practice, A. R. Cook, D.D.S., Syracuse, N. Y.; Essay—Surgical Operations for Closure of Cleft Palate in relation to Speech and Health, G V. I. Brown, M.D., D.D.S., Wisconsin; essay—Removable Porcelain Bridge Work, W. E. Griswold, D.D.S., Denver, Colorado; essay—Peridental Abscess, E. S. Talbot, M.D., D.D.S., Chicago, Ill.; essay—Laws Regulating the Practice of Dentistry and their Enforcement, W. A. Porrington, LL.D., New York.

All reputable dentists are most cordially invited to attend. Special rates at the Ten Eyck, \$3.50 per day.

JOHN I. HART, New York, President.

W. A. WHITE, D.D.S., Secretary, Phelps, N. Y.

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### Southern Wisconsin Dental Association.

The seventh annual meeting of the Southern Wisconsin Dental Association will convene at Delavan, Wis., on the 21st of May. A cordial invitation is extended to the profession.

J. H. REED, Secretary.

Lancaster, Wis.

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### Seventh District Dental Society of the State of New York.

The thirty-third annual meeting of the Seventh District Dental Society will be held at the Powers Hotel, Rochester, N. Y., Tuesday and Wednesday, April 9 and 10.

The Business Committee have arranged an excellent programme.

Mark off date in your appointment book.

F. MESSERSCHMITT, Secretary.

Rochester, N. Y.

## Illinois State Board of Dental Examiners.

The next regular meeting of the Illinois State Board of Dental Examiners, to examine applicants for a license to practice dentistry in this State, will be held in Chicago on the 2d, 3d and 4th of May, at the Chicago College of Dental Surgery, corner of Wood and Harrison streets.

Candidates must come provided with the necessary instruments, rubber dam and gold, to perform practical operations and such other work as is deemed advisable by the Board.

Those desiring to take the examination should matriculate with the Secretary ten days before the date of meeting.

The examination fee is ten dollars.

J. G. REID, Secretary.

1006 Champlain Bldg., Chicago, Ill.

## Massachusetts Dental Society.

The next annual meeting of the Massachusetts Dental Society will be held in Huntington Hall, Massachusetts Institute of Technology, Boylston street, Boston, Wednesday and Thursday, June 5 and 6.

A good meeting is assured. Prominent men of the profession have promised to attend. A large gathering is expected.

EDGAR O. KINSMAN, Secretary.

Cambridge, Mass.

## Dental Surgeons in U. S. Army.

Candidates for appointment as dental surgeons in United States Army will be examined in the following named branches: Anatomy, physiology, histology, physics, chemistry, metallurgy, dental anatomy and physiology, dental materia medica and therapeutics, dental pathology and bacteriology, orthodontia, oral surgery; operative dentistry, theoretical; prosthetic dentistry, theoretical; operative dentistry, practical; prosthetic dentistry, practical.

An average of 75% will be required in each subject for theoretical examination, and 85% in the practical examinations.

JOHN S. MARSHALL,  
President Examining Board of Dental Surgeons, U. S. Army.

**District of Columbia Dental Society and Maryland State Dental Association.**

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The fifth annual meeting of the District of Columbia Dental Society and the Maryland State Dental Association will be held at Baltimore, Md., May 16, 17 and 18. Please mark these dates off on your appointment book at once.

B. HOLLY SMITH, Chairman of Joint Committee.  
1007 Madison Ave., Baltimore, Md.

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**Tri-State Dental Association.**

The Tri-State Dental Association will meet in Paducah, Ky., May 28, 29 and 30.

W. H. BROSMAN, Secretary.  
Albion, Ill.

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**Sixth District Dental Society, State of New York.**

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The thirty-third annual meeting of the Sixth District Dental Society of the State of New York, will be held at Hotel Bennett, Binghamton, N. Y., on Wednesday and Thursday, May 2 and 3.

F. W. McCALL, Secretary.  
Binghamton, N. Y.

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**Iowa State Dental Society.**

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The thirty-eighth annual meeting of the Iowa State Dental Society will be held at Clear Lake, Iowa, May 21, 22 and 23. Arrangements are being made to make this meeting the best in the history of the society.

Clear Lake is one of the popular western resorts. Excellent boating, fishing, etc., good hotels, low rates to visiting dentists.

All reputable dentists are invited to meet with us.

I. C. BROWNIE, Secretary.  
Ames, Iowa.

### **Oklahoma Board of Dental Examiners.**

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The Oklahoma Board of Dental Examiners will meet at Oklahoma City, May 7, at 10 a. m., for the purpose of examining applicants for licenses.

Undergraduates will be prepared to do practical work.

E. E. KIRKPATRICK, Secretary.

Oklahoma City, O. T.

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### **West Virginia State Board of Dental Examiners.**

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The West Virginia State Board of Dental Examiners will meet at Wheeling May 1, 2 and 3, for the examination of candidates. The examination will be in writing and will cover all the branches taught in representative schools, together with operations in the mouth.

Applicants for examination are required to furnish their own instruments and materials. Previous examination questions will not be furnished.

W. E. MINGHINI, Secretary.

Martinsburg, W. Va.

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### **Fifth District Dental Society, State of New York.**

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The thirty-third annual meeting of the Fifth District Dental Society is called for April 9 at 5 p. m., at the office of Dr. C. H. Barnes, Syracuse. It is proposed to immediately adjourn to April 12 at 2 p. m., at the Yates Hotel, so that our regular meeting may immediately precede the dinner given in honor of Dr. S. B. Palmer, which occurs the evening of April 13. Mark off both days (April 12 and 13) and plan to attend all sessions.

R. B. REDWAY, Secretary.

Ilion, N. Y.

**Missouri State Dental Association.**

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The Missouri State Dental Association will hold its thirty-seventh annual meeting at Sedalia, Mo., July 9, 10, 11 and 12.

A cordial invitation is extended to all reputable practitioners to be present.

B. L. THORPE, Cor. Secretary.

3666 Olive Street, St. Louis, Mo.

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**Southwestern Michigan Dental Association.**

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The meeting of the Southwestern Michigan Dental Association will be held at Battle Creek, Mich., April 9 and 10. This is the only meeting to be held within the State this year. A good programme is assured.

C. W. JOHNSON, Secretary.

Lawton, Mich.

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**Central Dental Association.**

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The next meeting of the Central Dental Association of Northern New Jersey will be held in Newark at 943 Broad street in Davis' parlors on the evening of April 15th. The meeting will be preceded by a dinner at 6.15 sharp. The paper of the evening will be read by Thomas Fillbrom, M.D., D.M.D., of Boston, on "Harelip and Cleft Palate." The profession are cordially invited to both the dinner and meeting. The price of the dinner will be \$1.00, and invitations to the same can be procured of Dr. Charles A. Meeker, 29 Fulton street, Newark, N. J.